ERL™ Administrator's Manual

for

Windows NT™

AIX®

SCO®

Solaris™

Linux®

SilverPlatter®

Version 4.05

September 1999

ERL™ Administrator's Manual

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SilverPlatter Information, Inc.

100 River Ridge Drive

Norwood, MA 02062-5026, USA

TEL: 781-769-2599

FAX: 781-769-8763

Web site: www.silverplatter.com

SilverPlatter Information, Ltd.

Merlin House, 20 Belmont Terrace

Chiswick, London, W4 5UG, England

TEL: +44 (0) 181-585-6400

FAX: +44 (0) 181-585-6640

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Preface

This manual explains how to install, configure, and administer an ERL v4.05 server for Windows NT®, AIX®, SCO®, Linux®, and Solaris™.

Using this Manual

This Manual is available in PDF format so you can view it in Adobe Acrobat Reader. You can print the document, or use it online. If you use it online you can click on a Table of Contents entry, or a cross-reference, to move to the relevant text.

Some Conventions used in this Manual

These are the conventions used throughout this manual

Example	Describes
/sproot/bin	This bold type indicates a filename, or a directory path, or a URL. Where the instructions are specific to an installation on Windows NT, a directory path is shown with backslashes: **\sproot\cfiles**. Where the instructions are specific to UNIX, the directory path has forward slashes: **/sproot/bin**. In cases where the action is the same on either platform, you must enter slashes in the format appropriate for your platform.

(Sheet 1 of 2)

Example	Describes
`pkgadd`	This typeface indicates text as you would type it, or an example of how it appears on the screen.
`filename`	This bold type indicates a placeholder, when included in something you type. You substitute the text appropriate to your system.
filename	This italic type indicates a placeholder, when described in the text.
root	This italic type indicates an account name.
File	This bold type indicates a menu, menu option, or the name of a button on the screen. It is also used for command names.
[Enter]	This bold type inside [and] indicates a key on your keyboard. Note: if the instructions say “Enter...” this means type in the text as instructed, (substituting your text for any placeholders) and press the [**Enter**] key.

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Chapter 1

Introduction

SilverPlatter's ERL (Electronic Reference Library) technology makes database information available for searching over wide area networks.

In an ERL system, administrators provide access to information by installing and mounting databases on an ERL server. Administrators control database access by authorizing user accounts and defining the number of simultaneous connections for each database. They can also monitor and generate reports on system usage.

SPIRS clients provide the search and retrieval interface to the ERL server. Clients are available on several platforms, including the World Wide Web, Windows, Macintosh, UNIX, and DOS. (Each of these client platforms is addressed in separate documentation.)

This manual covers the installation and administration of the ERL v4.05 server for Windows NT®, AIX®, SCO®, Linux®, and Solaris™.

The Elements of an ERL System

An ERL system is made up of the following parts:

ERL Server

The ERL server has two separate components: the server process and the ERL Server Interface.

The server process runs in the background and functions as the engine of the ERL system. It performs database searches, ensures system security, collects statistics, and stores system information.

The ERL Server Interface is the menu-based program you use to interact with the server to manage databases and control various system functions.

ERL Administration Tools

WebAdmin and ERLAdmin are separate utilities that let you manage user accounts, control database access, and generate statistical reports.

We recommend that you use WebAdmin to administer the ERL v4.05 Server, because it makes full use of ERL v4.05 functionality.

You can install WebAdmin on any Solaris, SCO, Linux, or AIX machine running the Apache webserver, or NT running IIS 3 or 4, and you can run WebAdmin in Netscape 4 or Internet Explorer 4 on the above platforms, and Windows 95 and Macintosh.

You can install and run ERLAdmin on PCs running Windows 95 or Windows NT.

SPIRS Search Clients

SPIRS search clients provide the search interface to ERL. Clients are available for the World Wide Web (WebSPIRS), Windows (WinSPIRS), Macintosh (MacSPIRS), DOS (PC-SPIRS), and UNIX (UNIX-SPIRS) platforms.

ERL-Compliant Databases

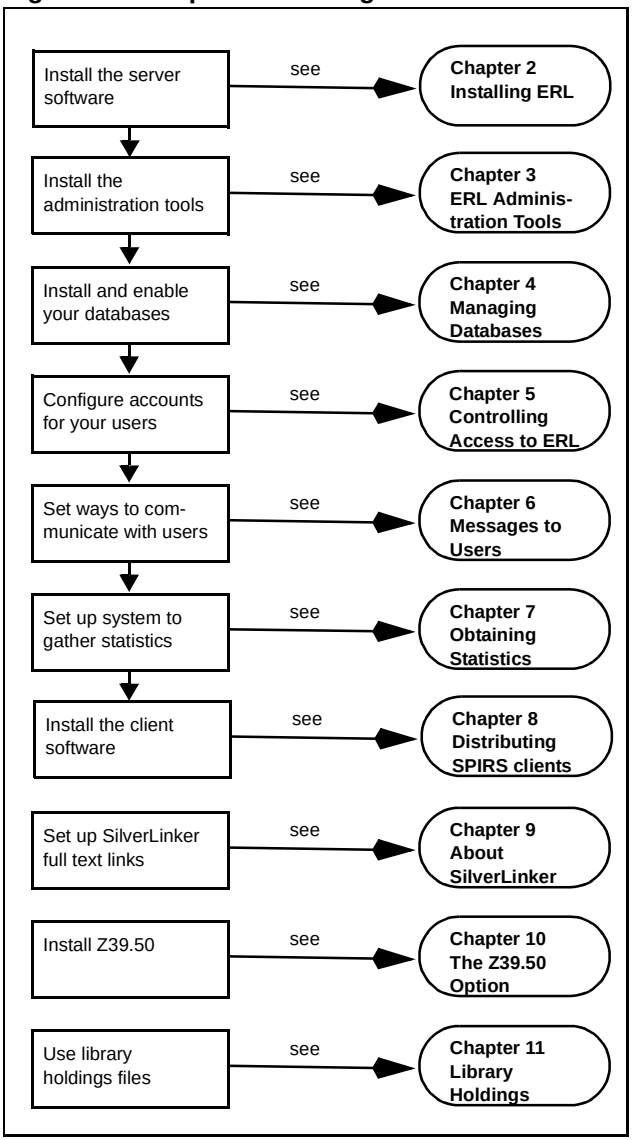
SilverPlatter produces an extensive catalog of databases for use on your ERL system. ERL-compliant databases are also available from a number of third-party publishers.

The Installation Steps

The following diagram shows you the various steps you go through to set up an ERL system, in the order you might take them. It also shows which chapters cover which steps.

The final three items, setting up SilverLinker full text links, installing Z39.50, and using library holdings files are, of course, optional, depending on whether you will be using these features.

Figure 1-1 Steps to Installing ERL



Contacting SilverPlatter

To learn more about SilverPlatter software, or if you have any queries about installing and running the ERL Server software, please do one of the following:

- Email our Technical Support staff:

  support@silverplatter.com

- Call your SilverPlatter distributor, or one of the following SilverPlatter Technical Support teams:

  - **For the Americas, Japan, Australia, and the Pacific**:

    Boston Office:
    Tel: 1-781-769-2599
    1-800-343-0064 (US/Canada)
    Fax: 1-781-769-8763

  - **For Europe, Africa, Middle East, and South Asia**:

    London Office:
    Tel: +44 (0)181-585-6400
    0800-262-096 (UK)
    Fax: +44 (0)181-585-6640

    Amsterdam Office:
    Tel: +31 (0) 20 6259650
    Fax: +31 (0) 20 6237408

    Berlin Office:
    Tel: +49 30-85 77 99-0
    Fax: +49 30-85 77 99-99

  - **For Asia**:

    Hong Kong Office
    Tel: 852 2529 0356
    Fax: 852 2804 2746

- Access the SilverPlatter website:

  www.silverplatter.com

Chapter 2

Installing ERL

Introduction

This chapter explains what software and hardware you need to install and run ERL v4.05, and tells you how to install the ERL server software on the following platforms:

- Windows NT® (NT 3.51 or NT 4.0 with Service Pack 3) (see "Installing ERL on NT" on page 2–11)
- AIX® (see "ERL for UNIX" on page 2–14)
- SCO® and Solaris™ (see "ERL for UNIX" on page 2–14)
- Linux®: follow the AIX instructions, except where marked as different. (see "ERL for UNIX" on page 2–14).

Before You Install ERL

You need to carry out the following tasks before you install the ERL v4.05 server software:

All Platforms

- Contact SilverPlatter Information or your local distributor to obtain your server license information (Server ID, Site Name and ID, for example), and your database license sheets. You receive this information as a printed sheet or an electronic file (or both). We recommend you install the electronic file when you install your license information.

Windows NT

- Check the server's paging file size to ensure that 4 MB per user is

available (To check this, open Control Panel, double-click System and select the Performance tab.) When you install the ERL server what you enter at ‘Max Logins’ must agree with the paging size.

- On NT Server 4.0, optimize your NT server file cache for network applications: In Control Panel open the Network dialog box, double-click the Services tab and under Server Properties, click “Maximize Throughput for Network Applications.”

UNIX

- Make a swap partition that allows 4 MB per user. If you have 64 MB of RAM create at least 128 MB of swap space.

If You Have an Earlier Version of ERL

- If you have an earlier version of ERL running, you must uninstall it. You may wish to back up your existing system: see “Backing up, Un-installing, and Re-installing an Earlier Version” on page 2–5.
- See the specific instructions for upgrading at “Upgrading to ERL v4.05” on page 2–7.

Checking Your System Requirements

Before you start to install the software you must check the hardware requirements for your platform.

For the very latest information about hardware requirements, please see the SilverPlatter web site at:
http://www.silverplatter.com/erl/erlserverreq.htm.

Gathering the Information You Need

When you install the software, you will be asked to specify various settings. It is worth deciding on your settings before you start installing. The following table lists these settings:

Setting	What it means
Directory in which to install the server	**Windows NT:** Installation program's default is recommended: **\sproot** **Solaris:** The complete path where you want to install the ERL Server package (for example **/opt**) **AIX and SCO:** Installation program's default is recommended: **/sproot**
Server Name	A name for the server (for example, `Library ERL Server`).The name is displayed in the SPIRS login prompt when clients connect to the server. Use no more than 79 characters.
ServerID	The server identifier specified on your ERL Server Registration card. When you enter your server ID, do not type SP$. Your server ID is the number that appears after the SP$ on a license sheet. The ServerID on the database license sheet must match the ServerID you enter when installing the ERL software.
Organization	The name of your organization. All ERL servers in your organization will share this name. Use no more than 79 characters.
Organization ID	An organization ID. All ERL servers in your organization will share this ID. Use no more than 15 characters.
Site Name	A name for the site (for example, `Central Library`). All ERL servers at your site will share this name. Use no more than 79 characters.
Site ID	A Site ID (for example, `library`). All ERL servers at your site will share this ID. Use no more than 15 characters.
Maximum Logins	The maximum number of simultaneous users you want to be able to use this server at one time. The number of users is based on the size of machine memory and virtual memory.
Inactivity Timeout	The inactivity limit for this server. This is the number of minutes the server waits for input from a client before terminating the connection with the client.

(Sheet 1 of 2)

Setting	What it means
CD-ROM Drive letters (devices file)	The drive letters for each CD-ROM drive you want to make available to ERL. **UNIX:** For details see "Preparing Filesystems" on page 2–16
Database destination drive/directory (nodes file)	The drives and/or directories to which you want to copy files when you install databases. **UNIX:** For details see "Preparing Filesystems" on page 2–16
IP address for WebAdmin or ERLAdmin (ipincl file)	The addresses of the computers on which you will install and run WebAdmin or ERLAdmin. You can add the addresses of your client machines now or later. **UNIX:** For details see "Entering IP Addresses" on page 2–18

(Sheet 2 of 2)

Getting the Software

The ERL software and full documentation set is available on SilverPlatter's ftp site.

Downloading With a Browser

1. Access the SilverPlatter web site; **http://www.silverplatter.com**
2. Click on the link to the ftp site, and click on **Software**, then on **erl-server**
3. Access the **aix**, **nt**, **sco**, or **solaris** directory.
4. Double-click on each file to download it. The files are:
   - The compressed software (**erlsrvr.exe**, **erlsrvr.tar.Z**, **erlsrvr.pkg.Z**, depending on the platform)
   - The release notes (**readme.txt**)
   - The *ERL Administrator's Manual* (this manual - **erlmn405.pdf**)

Downloading from the ftp Site

1. Use anonymous ftp to connect to SilverPlatter's site: **ftp.silverplatter.com**

   Login with user-id *anonymous* and enter your email address as a

password.

2. Change to the **/software/erl-server** directory.

   (To do this, enter `cd /software/erl-server`)

3. Change to the **aix**, **nt**, **sco**, or **solaris** directory.

4. Make sure you will download the files as binary files.

   (To do this, enter `bin`)

5. Download all the files from the directory.

   (To do this, enter `mget *`. You are prompted to enter `y` to agree to download each file.)

   The files will download into whatever is your local directory. The files are:

   - The compressed software (**erlsrvr.exe**, **erlsrvr.tar.Z**, **erlsrvr.pkg.Z**, depending on the platform)
   - The release notes (**readme.txt**)
   - The *ERL Administrator's Manual* (this manual - **erlmn405.pdf**)

Backing up, Un-installing, and Re-installing an Earlier Version

If you have an earlier version of ERL installed we recommend that you make a backup of your system and retain it.

Backing Up version 2.x on UNIX

To ensure that you can restore ERL v2.x if necessary, do the following:

1. Backup the ERL v2.x software files in **/sproot**, excluding **/sproot/nodes**.

2. Stop the process: **dbserver**. See "Stopping the Server" on page 2–18.

   AIX: There is no uninstall program on AIX. If you are installing ERL v4.05, and you have AIX v2.11 installed, you can install the newer version over the older one, and you will not lose any of your

existing settings.

If you have AIX v1.2 installed, delete all the **/sproot** files manually, and then install v4.05.

SCO UNIX and Solaris: Enter the following command to remove the v2.09 software. Do not remove any files manually.

```
pkgrm ERLsrvr
```

(Database, user, and portfolio information are retained.)

3. Now check your system requirements and proceed to upgrading to v4.05. See "Upgrading to ERL v4.05" on page 2–7.

Note for AIX: If you are uninstalling an earlier version of ERL and you are not installing ERL v.4.05 on your AIX machine (for example, if you are installing it on a different machine), you must stop the server from trying to start up on a machine reboot after you delete the files. Login as the user *root* and enter:

```
rmitab spdbserver
```

Re-installing v2.x on UNIX

Note: If you re-install v2.x, you will lose any databases installed while using v4.05.

1. Uninstall v4.05 using **pkgrm**.
2. Delete **/sproot/files**, **/sproot/bin**, and **/sproot/masters**. (Leave **/sproot/nodes** on the system.)
3. Install v2.x.
4. Restore files from backup back to **/sproot**.

Backing Up v2.11 on NT

To ensure that you can restore ERL v2.11 if necessary, do the following:

1. Backup the ERL v2.11 software files (if you used the default, these are located in **C:\sproot**).
2. Shut down the server.
3. Uninstall v2.11 by clicking on the **Uninstall** icon in the program group. (Database, user, and portfolio information are retained.)

4. Now check your system requirements and proceed to installing v4.05. See "Upgrading to ERL v4.05" on page 2–7.

Re-installing v2.11 on NT

Note: If you re-install v2.11, you will lose any databases installed while using v4.05.

1. Shut down the server.
2. Uninstall v4.05.
3. Delete the files in **C:\sproot** *the_directory_where_ERL_files_were_installed*.
4. Install v2.11.
5. Shut down the server.
6. Copy files from backup back to **\sproot**.

Upgrading to ERL v4.05

This section contains important information that is relevant if you are upgrading from an earlier version of the ERL Server. If you have an earlier version installed, you may wish to back up your existing system: see "Backing up, Un-installing, and Re-installing an Earlier Version" on page 2–5.

If you are installing the software for the first time, you do not need to read this section, but can turn to "ERL for Windows NT" on page 2–11 or "ERL for UNIX" on page 2–14.

Some Changes in ERL v4.0

- The configuration file, **dbmenu.cfg** is now in the directory **/sproot/cfiles**. (See "Creating a Menu of Database Titles" on page 4–14.)
- The default authorization for new databases (NOAUTHLIST; displayed as NOAUTH in ERLAdmin) is set to NO.
- The enhancements to the statistics function in ERL v4.0 mean that the directory **/sproot/stats**, and the files **pstats.dat** and **pstats.idx**, and **dstats.dat** and **dstats.idx** have been removed. If you want to

keep statistics created in earlier versions of ERL we recommend that you make a system backup and export any statistics you want to save, **before** you upgrade.

- The NT ERL server now starts as the user *ERL*, rather than as System Account. (See "Starting ERL on NT" on page 2–12.)
- When you upgrade, the *admin* user password is re-set to "admin".

Some Changes in ERL v4.05

- The enhancements to the statistics function in ERL v4.05 mean that existing statistics files created in ERL v4.x are converted when you upgrade to v4.05, and the statistics directory, **/sproot/erlstat** stores the converted statistics files, called *date*.**log** and *date*.**idx**. The old files are converted then deleted. If you want to keep the statistics created in earlier versions of ERL (before ERL v4.0), we recommend that you make a system backup and export any statistics you want to save, **before** you upgrade.

Points to Note Before You Upgrade

There are some important issues you should be aware of if you are upgrading from an earlier version of the ERL Server:

- You cannot upgrade from ERL v1.2: you must delete the **/sproot** directory, and its contents, and then install v4.05 as a new installation.
- If you are upgrading from v2.0 or greater, you can keep the **/sproot** directory. This means you can keep your existing accounts, portfolios, authorizations, and other settings, and your installed databases will not be affected.
  - If you retain your existing accounts, you must check for, and remove, any commas in the Description and Reference fields of the user accounts, **before** you upgrade.

Upgrading from v2.09 on SCO and Solaris

1. Download and uncompress the v4.05 software. (See "Getting the Software" on page 2–4 and "Uncompressing the Installation Files" on page 2–14.)
2. Export any statistics files you want to keep. If you want to make a backup of the whole system see "Backing up, Un-installing, and Re-installing an Earlier Version" on page 2–5.
3. Stop the process: **dbserver**. See "Stopping the Server" on page 2–18

4. Enter the following command to remove the v2.09 software. Do not remove any files manually.

   ```
   pkgrm ERLsrvr
   ```

5. Install the v4.05 software. (See "Installing the software" on page 2–14.)

6. Start the server. (See "Starting the Server" on page 2–18.)

Upgrading from v2.11 on NT

1. Download the software. (See "Getting the Software" on page 2–4.)

2. Export any statistics files you want to keep. If you want to make a backup of the whole system see "Backing up, Un-installing, and Re-installing an Earlier Version" on page 2–5.

3. Stop the ERL Server 2.11 NT service.

4. Click the **Uninstall** icon in the SilverPlatter ERL 2.11 Program group.

   Note: Do not uninstall the server using **Add/Remove Programs** in the Control Panel. Do not remove any files manually, except for the file listed in the next step.

5. If the **\sproot\bin** directory contains a file **dbl.txt**, remove that file.

   Note: Do not remove any other files manually.

6. Install the v4.05 software. (See "Installing ERL on NT" on page 2–11.)

7. Start the server. (See "Starting ERL on NT" on page 2–12.)

Upgrading on AIX

There is no uninstall program on AIX.

If you are installing ERL v4.05, and you have AIX v2.11 installed, you can install the newer version over the older one, and you will not lose any of your existing settings.

If you have AIX v1.2 installed, delete all the **/sproot** files manually, and then install v4.05.

To stop the server from trying to start up on a machine reboot after you delete the files, login as the user *root* and enter:

```
rmitab spdbserver
```

ERL for Windows NT

This section provides instructions for installing ERL v4.05 on Windows NT. You should also read the release notes (**readme.txt**) for your particular release: they contain any late-breaking information about installing and running the software.

Installing ERL on NT

To install the server:

1. Create a temporary directory for the **erlsrvr.exe** file.
2. Run **erlsrvr.exe** to extract the files to the temporary directory. The installation program starts and the Welcome screen appears.
3. Click **Next** to continue.
4. Confirm the directory in which to install the server. We recommend using the installation program's default selection: **\sproot**.
5. In the Server Information dialog box, type the requested information in each of the following fields:
   - **Server Name:** Enter a name for the server (for example, `Library ERL Server`). The name is displayed in the SPIRS login prompt when clients connect to the server.
   - **Server ID:** Enter the server identifier specified on your ERL Server Registration card. When you enter your server ID, do not type `SP$`. Your server ID is the number that appears after the SP$ on a license sheet. The server ID on the database license sheet must match the server ID you enter when installing the ERL software.
   - **Organization:** Enter the name of your organization. All ERL servers in your organization will share this name.
   - **Organization ID:** Enter an organization ID. All ERL servers in your organization will share this ID.
   - **Site Name:** Enter a name for the site (for example, `Central Library`). All ERL servers at your site will share this name.
   - **Site ID:** Enter a Site ID (for example, `library`). All ERL servers at your site will share this ID.
   - **Maximum Logins:** Enter the maximum number of simultaneous user logins you want to allow, based on the virtual

memory capacity (the paging size) of your machine. Refer to "Checking Your System Requirements" on page 2–2 for details. If you see a message asking for more memory during installation, stop the installation, adjust the paging size, and resume the installation.

- **Inactivity Timeout:** Enter the time limit for client inactivity. The server will disconnect any inactive client after the specified time limit. The default is 30 minutes.

6. A confirmation screen appears. Check the information, press **Next** to proceed with the installation or **Back** to make changes.

7. If the ERL account does not exist, the screen asks for the ERL account password, which is used when the ERL server service starts.

8. Once you have confirmed the Server Information, a window showing the **devices** file is displayed. Scroll to the bottom and enter the drive letters for each CD-ROM drive you want to make available to ERL. When you are finished, save and close the file to return to the setup program.

Note: You can edit **devices**, **nodes**, and **ipincl** following installation: **devices** and **nodes** are in **\sproot\files**, and **ipincl** is in **\sproot\cfiles**. You can also edit **ipincl** and create new IP address sets through WebAdmin.

9. The **nodes** file appears. Scroll to the bottom and add the drives and directories to which you want to copy database files when you install databases.

   You must specify at least one drive, even if you do not plan to copy any databases onto hard disk.

10. The **ipincl** file appears. This allows you to control the access to the ERL server based on the IP address range of your users' client machines. At minimum, add the addresses of the computers on which you will install and run WebAdmin or ERLAdmin. You can add the addresses of your client machines later. For more information about IP addresses see "Setting IP Address Checking" on page 5–1.

11. Click **Next**. The Setup program installs the ERL server. Icons for the ERL Server, Uninstaller program, and Release Notes appear in the ERL program group.

Starting ERL on NT

The ERL server is installed, and started, as a service running as a user called *ERL*. This user account is created during installation (if one does not exist already). The *ERL* user must belong to the administrator group.

If you run the ERL server as a different user, you will not be able to access databases across the network.

You can stop and start ERL, check the status of the service, and change the account under which the service runs, through the Services control panel.

If you reboot the server, the ERL service is started automatically.

If you are using NT's shared directories capability to access databases on other machines, you should start the ERL service using the same user name as the shared directory machine. To do this, create an *ERL* user on every machine which has the shared directories. Then run the ERL service as the *ERL* user.

Starting the Server Menu

To start the server menu:

- In the ERL 4.05 Server program group, double-click on the ERL 4.05 Server User Interface.

or

- Open a DOS-window and change to the **\sproot\bin** directory. Then enter: `dbserver -u`

Uninstalling ERL for NT

To uninstall the server, click the **Uninstall** icon in the SilverPlatter ERL 4.05 Program group.

Note: Do NOT uninstall the server using **Add/Remove Programs** in the Control Panel.

Any directories and files created after the installation remain in **\sproot**. If necessary, you can delete them.

ERL for UNIX

This section provides instructions for installing ERL v4.05 on AIX, SCO, Linux, and Solaris.You should also read the release notes (**readme.txt**) for your particular release: they contain any late-breaking information about installing and running the software.

Uncompressing the Installation Files

To prepare for installation on SCO, and Solaris:

1. Log in as *root*. You should see a hash mark (#) prompt.
2. Make sure the ERL package is available.
   - If you are installing ERL from a CD-ROM, make sure the CD-ROM is mounted.
   - To locate the package, use the find command:

     ```
     find / -name erlsrvr.pkg.Z
     ```
3. Change to the subdirectory containing the compressed ERL files. For example, at the hash mark (#) prompt, enter:

   ```
   cd /erl-packages
   ```
4. Uncompress the ERL files:

   ```
   uncompress erlsrvr.pkg.Z
   ```

Installing the software

The initial installation steps differ slightly from AIX and SCO/Solaris. Follow the appropriate platform-specific instructions, and then refer to "The Server Setup Process" on page 2–15.

AIX- and Linux-Specific Instructions

1. Decide which directory to use for the ERL installation. This directory will need at least 2GB of free space. (The recommended directory is ***/sproot***).

   Note: If you do not install ERL on the root filesystem, create a symbolic link from ***/sproot*** to the directory where you will install:

   ```
   ln -s install_dir /sproot
   ```

   where *install_dir* is the full pathname of the directory where you will

install.

2. (AIX only) If you are re-installing ERl v4.05 for any reason (or if you are installing a later version, when available) enter:

   ```
   slibclean
   ```

3. Enter

   ```
   ./erlsrvr
   ```

SCO- and Solaris-Specific Instructions

1. Enter the following command to begin the installation:

   ```
   pkgadd -d full_pathname/erlsrvr.pkg
   ```

   where *full_pathname* is the complete path to the server package.

2. The installation script lists available packages and prompts you for the package you want to process. Enter the number that is next to the ERL server package, version 4.05.

3. (**Solaris only**) The script prompts you for the path to the base directory. Enter the complete path where you want to install the ERL server package (for example, **/opt**).

4. The script lists several files and asks if you want to install them, and then if you want to continue with the installation.

   Enter `y` at both prompts.

The Server Setup Process

1. Now enter answers to a number of questions about your server:

   - **Server ID:** Enter the server identifier specified on your ERL Server Registration card. When you enter your server ID, do not type SP$. Your server ID is the number that appears after the SP$ on a license sheet.
   - **Server Name:** Enter a name of up to 79 characters for this server. The name is displayed in the SPIRS login prompt when clients connect to the server.
   - **Organisation ID:** Enter an Organisation ID of up to 15 characters. All ERL servers in your organization will share this ID.
   - **Organisation Name:** Enter an Organisation Name of up to 79

characters. All ERL servers in your organization will share this name.

- **Site ID:** Enter a Site ID of up to 15 characters. All ERL servers at your site will share this ID.
- **Site Name:** Enter a Site Name of up to 79 characters. All ERL servers at your site will share this name and it will be displayed by directory servers to indicate ERL servers within a given site.
- **Max Logins:** Enter the maximum number of simultaneous users you want to be able to use this server at one time. The number of users should correspond to the amount of swap space available. Refer to "Checking Your System Requirements" on page 2–2 for details.

2. The script tells you the amount of available swap space, then asks if you want to change any of the server information.

   Enter `y` to make changes or `n` to continue with the installation.

3. **Inactivity Limit:** Enter the inactivity limit for this server. This is the number of minutes the server waits for input from a client before terminating the connection with the client.

Preparing Filesystems

Follow these instructions after you unpack the ERL server software.

All Platforms

1. If you will be loading databases onto one or more hard disks, make a filesystem on each hard disk, and give it an appropriate name. (See your UNIX documentation for specific instructions.)

2. In the directory **/sproot/nodes**, create directories **disk1** through to **diskn**, where *n* is the number of filesystems you will use to copy your databases.

   Note 1: Create only as many **diskn** directories as you have hard disk filesystems. If you plan to add more hard disk filesystems later, create additional **diskn** directories as and when you need them.

   Note 2: If you have already established mount points for your hard disk filesystems, remove the current **diskn** directories and make a symbolic link from the mount point of each of the filesystems to one of the **diskn** directories.

3. Make sure the directories you just created are owned by user *erl*.

4. Make sure that your CD-ROM devices are configured properly; the ERL software creates its own mount points for each one. The file **/sproot/files/devices** is set up automatically during installation, and contains the device names of the CD-ROM drives. If you later configure additional CD drives you will need to add the device names to this file. (For Solaris, see the instructions following immediately.)

Additional Solaris-Specific Instructions

1. Edit the file **/sproot/files/devices**. For each CD-ROM drive, add the following line to the list of devices:

   ```
   dev/dsk/c0tnd0s0
   ```

   where *n* is the SCSI id number of the CD-ROM drive. This configures the CD-ROM drives to your ERL system.

2. Edit the file **/etc/vold.conf**. For each CD-ROM drive, comment out (by inserting a pound sign, #, in front of) the following line:

   ```
   use cdrom drive /dev/dsk/c0tn dev_cdrom.so cdrom0
   ```

   where *n* is the SCSI id number of the device. This prevents contention between the Solaris CD manager program and ERL.

3. Stop the **vold** process by entering the following command:

   ```
   kill -1 pid
   ```

   where *pid* is the process id of **vold**. (If necessary, enter the `ps -ef` command to find out the **vold** process id.)

4. Edit the **/etc/vfstab** file, which controls which filesystems mount automatically when you boot the system. For each hard disk filesystem, put "yes" in the **`Mount at Boot`** column, and put the following path in the **`mount point`** column:

   ```
   /sproot/nodes/diskn
   ```

   where *n* is the sequential number of the filesystem.

   Note: Do not make **/sproot/nodes** a mount point.

5. Enter the following command for each of the hard disk filesystems mounted under **/sproot/nodes**:

   ```
   tunefs -m 0 /dev/dsk/c0tnd0sm
   ```

   where *n* is the SCSI id, and *m* is the partition number. This frees up the filesystem space that Solaris reserves by default.

Entering IP Addresses

For new installations (not upgrades) of the ERL Server on UNIX, you need to edit the **/sproot/cfiles/ipincl** file so that it includes the IP addresses for all the machines you want to be able to access the ERL server. (Refer to "Setting IP Address Checking" on page 5–1 for further details.)

Starting and Stopping the ERL Server on UNIX

Starting the Server

Once installed, the ERL server starts automatically when you reboot your machine. To start the server manually, from the **/sproot/bin** directory, login as the *erl* user and enter:

```
../scripts/start_server
```

To start the ERL server interface, login as the *erl* user and enter:

```
./dbserver
```

The dbserver menu appears.

Stopping the Server

If you ever need to shutdown the UNIX server, you can stop the ERL sever as follows:

1. Return to the ERL server main menu.

2. At the **dbserver** prompt, enter `SHUTDOWN`. ERL asks you for the number of minutes until shutdown.

3. Enter the number of minutes. If you enter one minute or more, ERL sends the following message to user accounts currently accessing the server:

   ```
   ERL Database Server shutting down...
   ```

   Note: If you enter nothing for the number of minutes until shut-

down, ERL will shut down without sending any notification to user accounts. You may want to send a specific message to user accounts before you stop ERL. See "Sending a Message" on page 6–1 for more information on sending messages to users.

ERL delays for the specified number of minutes, if any, and then shuts down and returns you to the UNIX prompt.

Chapter 3

ERL Administration Tools

Introduction

This chapter explains how to install the ERL administration tools. Administration includes managing accounts, controlling access to databases, and generating statistical reports. These activities are covered in later chapters.

Administration Utilities

There are two utilities available for ERL administration: WebAdmin and ERLAdmin. The different ways you use these two utilities is explained in later chapters. We recommend you use WebAdmin to administer the ERL v4.x server because it makes use of full ERL v4.x functionality. You must have a web server running to install WebAdmin.

Note: You cannot administer ERL servers earlier than version 4.0 with WebAdmin; for those servers, you must use ERLAdmin.

WebAdmin

WebAdmin runs on all platforms with a supported web server and a supported web browser over the Internet.

WebAdmin is the recommended administration tool for the ERL v4.x server because it makes use of full ERL v4x functionality.

Features unique to WebAdmin include:

- Message of the Day

  Create a message that users see when they log in to ERL.

- Database Menu

  Arrange the databases on your server.

- Connections

  Display connected accounts or databases in use.

- IP Address Sets

  Create user-specific IP address sets.

- Enhanced Statistics

  Generate reports by Account, Portfolio, Database ID, Database Group, or IP Address; easily define your date range, sort order, and data to include.

ERLAdmin

ERLAdmin runs on Windows 95 and NT. See "Installing ERLAdmin" on page 3–6.

Installing WebAdmin

WebAdmin runs from a supported web browser from any location, over the Internet. WebAdmin requires ERL release 4.0 or higher.

WebAdmin Requirements

You can install and run the WebAdmin on any system that meets the minimum requirements listed below.

Component	Minimum Requirement	
Operating Environment:	Windows NT, AIX, SCO, or Solaris	
Web Server:	**Windows NT:**	IIS2, IIS3, or IIS4
	UNIX:	Apache
Web Browser:	**Windows 95 or Windows NT:**	Netscape 4.0+, with the exception of 4.02[1]
		Internet Explorer 4.0+
	Macintosh OS 7.6+:	Netscape 4.05+

[1.] Note that Java was not enabled in Netscape 4.02

Getting the Software

WebAdmin is available on SilverPlatter's ftp site. To download WebAdmin:

1. Use anonymous ftp to connect to SilverPlatter's site: **ftp.silverplatter.com**
2. Change to the **/software/erl-administration/webadmin** directory.
3. Change to the **aix**, **nt**, **sco**, or **solaris** directory.
4. Download all files from the directory. They are the compressed software and release notes.

Refer to the Release Notes for late-breaking information about installation.

Installing WebAdmin on Windows NT

WebAdmin for Windows NT is distributed as a self-extracting archive file: **webadmin.exe**.

1. Double-click on **webadmin.exe** to extract and start the installation wizard.
2. Accept the defaults by clicking the **Next** button, or substitute

preferred values.

3. Click the **Finish** button to complete the installation.

4. Restart the World Wide Web Publishing Service using the Services control panel before using WebAdmin.

Any browser meeting the requirements set out at "WebAdmin Requirements" on page 3–3 should be able to run WebAdmin using the following URL:

http://[webserver]/webadmin/index.html

Installing WebAdmin on AIX, SCO, or Solaris

Installing on AIX

WebAdmin for AIX is distributed as a compressed tar file, **webadmin.tar.Z**.

1. Move or copy **webadmin.tar.Z** to the directory below which you want WebAdmin installed. The install process will create a WebAdmin subdirectory in the directory in which you place **webadmin.tar.Z**

2. Uncompress the tar file by typing:

   ```
   uncompress pathname/webadmin.tar.Z
   ```

3. Untar the file by typing:

   ```
   tar -xpf pathname/webadmin.tar
   ```

4. Change to the WebAdmin subdirectory.

5. Run the setup script by typing:

   ```
   ./setup
   ```

6. Answer the questions asked by setup as described in "UNIX Setup" on page 3–5.

Installing on SCO or Solaris

WebAdmin for SCO or for Solaris is distributed as a compressed package, **webadmin.pkg.Z**.

1. Uncompress the package by typing:

```
uncompress pathname/webadmin.pkg.Z
```

2. Add the WebAdmin package by typing:

```
pkgadd -d pathname/webadmin.pkg
```

3. Answer the questions asked by setup as described below.

UNIX Setup

Both types of UNIX install ask:

1. The location of the Apache **httpd.conf** configuration file.

   This allows the installation program to configure Apache to find WebAdmin. If you would rather modify the Apache configuration files manually (necessary changes are detailed below), enter none in response to this question.

2. The User Name and Group Name that will own the WebAdmin files.

   Enter your preferred User Name and Group Name or accept the default (ERL) to continue installation.

If you let the installation modify the Apache configuration files, you need only to restart Apache before using WebAdmin.

If you opted to make the changes manually, make the changes to the **httpd.conf** and **access.conf** files as listed in the following table, and then restart Apache:

httpd.conf	
Purpose:	To create aliases for the location of the WebAdmin scripts. (Enter as two lines at the end of the file.)
What you enter:	`ScriptAlias relative_path/ absolute_path/scripts` `Alias relative_path absolute_path`
Example circumstances:	If you installed in **/sproot/webadmin** and accepted the default HTML path.
Example entry:	`ScriptAlias /wascripts /sproot/webadmin/scripts` `Alias /webadmin /sproot/webadmin`

access.conf	
Purpose:	To set the correct access conditions for the WebAdmin directory. (Enter as four lines at the end of the file.)

What you enter:	`<Directory actual_path/scripts>`
	`AllowOverride None`
	`Options ExecCGI`
	`</Directory>`

Example circumstances:	If you installed in **/sproot/webadmin** and accepted the default HTML path.

Example entry:	`<Directory /sproot/webadmin/scripts>`
	`AllowOverride None`
	`Options ExecCGI`
	`</Directory>`

Installing ERLAdmin

ERLAdmin comes in the form of a self-extracting executable file (**erladmin.exe**). The installation process varies slightly depending on the operating system used by the ERLAdmin machine.

Note: Although ERLAdmin is still supported, we now recommend you use WebAdmin to administer the ERL v4.x server because it makes use of full ERL v4.x functionality. You must have a webserver running to install WebAdmin.

ERLAdmin Requirements

You can install and run ERLAdmin on any PC that meets the minimum requirements listed below.

Component	Minimum Requirement
Computer:	80486 IBM-compatible PC
Memory:	8 MB
Video:	monochrome
Operating Environment:	Windows 95 or Windows NT

(Sheet 1 of 2)

Component	Minimum Requirement
Hard Disk:	4 MB
CD-ROM Drive:	ISO 9660, 680 MB
Other:	Parallel Port for printer
Network protocol:	Microsoft TCP/IP

(Sheet 2 of 2)

Getting the Software

ERLAdmin is available on SilverPlatter's ftp site.

To download ERLAdmin:

1. Use anonymous ftp to connect to SilverPlatter's site:

   ftp.silverplatter.com

2. Change to the **/software/erl-administration/erladmin directory**.

3. Download **erladmin.exe**.

Installing ERLAdmin for Windows 95/ Windows NT

To install ERLAdmin:

1. Change to the directory or drive containing the software and double-click on **erladmin.exe**.

2. Follow the instructions on each screen. Click **Next** to proceed to the Directory screen.

3. Click **Next** to accept the default installation directory or **Browse** to change directories. If the directory does not already exist, the Install program will create it for you.

4. At the next screen you can verify the directory. Click **OK** to continue.

5. The Installer asks if you want to display dates as MM/DD/YY or DD/MM/YY. Pick one and click **Next**.

6. You are then asked how many lines per page you want for printed reports. Enter a number and click **Next**.

7. Specify the Program Folder in which to install ERLAdmin and click **Next**.

8. Confirm the settings and click **Next**.

   ERLAdmin is copied to the designated directory and a Setup Complete screen is displayed.

9. At the Setup screen you have two options: you can read the Release Notes for the software and you can identify the database servers to the software using the ERL Configuration Editor. Because you must identify the servers before you can use ERLAdmin, we recommend that you do this now. Click the "Yes, I want to configure ERL Administrator" prompt, and then click **Finish**. See below to add servers.

You can run the ERL Configuration Editor later from the Start menu or Program Group.

If you run the ERL Configuration Editor directly from the Setup program, the help file is also opened.

Adding Servers

To add a server:

1. Enter the IP address of the server in the IP Address field. You can enter the host name or IP address of the server: for example. **192.80.71.80** or **erl.silverplatter.com**.

2. Specify the Port Number of the ERL server in the Port list box. This is either 416 or 5000.

3. Click **Add Server**.

4. Click **Save** to save the settings.

You can now run the ERLAdmin utility.

Chapter 4

Managing Databases

Introduction

This chapter explains how to make available and maintain the databases on ERL, using the ERL server menu on the server machine.

There are four ordered steps to make a database available:

1. Install the license for the database
2. Install the database
3. Mount the database
4. Enable the database

You use the ERL server menu to perform these steps. You will also need to update databases on a regular schedule.

This chapter describes all the above actions as well as the following:

- Unmounting a database
- Disabling a database
- Removing a database
- Displaying the status of a database
- Creating a menu of database titles

In addition you can specify which accounts or IP addresses can access your databases. This is described in Chapter 5, “Controlling Access to ERL”.

Note: If you have not installed databases before, you might want to license, install, mount, and enable one database to start with, check that you can search that database using a SPIRS client, and then install other databases.

ERL Server Menu

You perform most database management activities through the ERL server menu, described below.

Server Menu Option	Description
1. Show Mounted Database(s)	Lists all mounted databases
2. Mount Database(s)	Makes installed databases available to administrative accounts
3. Unmount Database(s)	Unmounts databases
4. Enable/Disable Database(s)	Makes mounted databases available to authorized user accounts
5. License Administration	Installs, removes, and displays database licenses
6. Database Installation	Installs, removes, and displays databases
7. Apply Database Update	Replaces old database with its installed and mounted update
8. Show Connection(s)	Displays connected accounts
9. Send Message	Sends messages to one or more users
10. Split Statistics	Splits the statistics file so that the file containing existing statistics can be archived, and further statistics are stored in a new file.
11. Exit from Menu	Closes the server menu

Licensing Databases

An ERL license resides on the server and contains all the information ERL needs for your database or product subscription. You will have one license for each database or product that you put on your server.

When you receive the first installment of your subscription, you will also receive your license, in the form of either a Database License Authorization Sheet or an electronic license file. The license indicates several items about the product, including the server ID supplied by SilverPlatter, the maximum number of simultaneous connections allowed to the product, and whether or not the product can be installed on a hard disk.

Important: You must install the license for a database before you do anything else with the database. You can update licenses when they expire, remove old licenses, and list the licenses that are currently installed.

Installing a License

To license a database, use the ERL server menu:

1. Select **5. License Administration** from the ERL server menu.

   The License menu is displayed.

License Menu Option	Description:
1. Install License	Installs licenses
2. Remove License(s)	Removes licenses
3. List License(s)	Lists the currently installed licenses
4. Display License(s)	Displays information about the currently installed licenses
5. Save License(s)	Saves licenses to text files
6. Exit	Returns to the previous menu

2. Select **1. Install License** from the License Menu. ERL prompts you for the path and filename of the license file (the default path is **\sproot\bin**).

3. If you have an electronic license file, enter the name of the file.

   If you have a license sheet, press **[Enter]** to skip this field and enter all the information located on the Database License sheet **exactly** as it is written.

4. You are then asked to accept, decline, display, or print the license. To install the license, select **1. Accept agreement and install license**.

Once you install a license, you can install the corresponding database. You will also be able to install updates to the database for the life of the license.

If you want to proceed to installing a database, see "Installing Databases" on page 4–5

Removing a License

You can remove a license at any time. All databases associated with the license are then made inaccessible, and all accounts connected to the databases are then disconnected. (You can send a message to those accounts before removing the license; see "Sending a Message" on page 6–1 for information.)

1. Select **5. License Administration** from the ERL server menu. ERL displays the License menu.
2. Select **2. Remove License(s)** from the License Menu.
3. ERL lists the available licenses by license ID, with the product code and product name.
4. Type in the ID of the license you want to remove. You can enter multiple license IDs separated by spaces.
5. Confirm that you want to remove the license(s).
6. Press **[Enter]** to return to the License menu.

Listing Licenses

To list all the currently installed licenses:

1. Select **5. License Administration** from the ERL server menu. ERL displays the License menu.

2. Select **3. List License(s)** from the License Menu. ERL lists the installed licenses.

3. Press **[Enter]** to return to the License menu.

Displaying Licenses

To display all the information contained in a license:

1. Select **5. License Administration** from the ERL server menu. ERL displays the License menu.

2. Select **4. Display License(s)** from the License Menu. ERL lists the installed licenses.

3. Type in the ID of the license you want to display. You can enter multiple license IDs separated by spaces.

4. Confirm that you want to display the license(s).

5. Page through the licenses, if necessary, and press **[Enter]** to return to the License menu.

Updating Licenses

Before a license expires, you should install an updated license directly over the old one. This maintains any account authorizations you have created for the license.

QUIKdata v2 enables ERL customers to transfer updated SilverPlatter databases and license sheets to their site, electronically over the Internet.

If you are not using QUIKdata to update an expired license electronically, simply install the new license over the old. Refer to "Installing a License" on page 4–3 for instructions.

Installing Databases

Once you have licensed a database, you can install it.

Installation Types

There are three types of installations:

- CD-ROM Installation: This copies few files to your hard drive and thus is very quick, but requires that the CDs be loaded for searching

and provides slower search results.

- Magnetic Copy: This provides fast searching and frees up your CD drives, but requires considerably more hard disk space than CD-ROM installations and takes much longer.

- Magnetic Link: This is used if you have copied a database to your hard drive and want to make it available to ERL. This is required for databases delivered on tape, but you can also use it for CD-ROM deliveries.

As indicated above, the type of installation you choose may be dictated by the delivery medium. It may also be determined by the database license: Some require CD installations; others require magnetic installations; most allow for either type.

Note: If you copy a database to your hard drive manually, do not copy the database into the same directory that you specified in the **nodes** file. (See "Installing ERL on NT" on page 2–11 and "Installing the software" on page 2–14.) If you do, you will have problems while you install a database, and afterwards.

Installing a Database

To install a database, go through each of the following stages.

Make the database available

- If the database was delivered on CD, insert the disk into a CD-ROM drive.

- If the database was delivered on tape, copy the tape to your hard drive:

  - On UNIX, use the native tar commands.
  - On Windows NT, use **tar.exe** and **mt.exe** (located in **\sproot\bin**). Refer to **how2tar.txt** in the same directory for more information about the **TAR** command.

Set the environment variable

- On UNIX, enter the following:

```
DBIPATH=directory_name
export DBIPATH
```

where *directory_name* is the hard disk location for tape data.

On Windows NT - Method One

1. Open a DOS command prompt window.
2. Enter `set DBIPATH=`**`pathname`**

   where *pathname* is the hard disk location for tape data.
3. Change to the **\sproot\bin** directory and start the Server menu by entering `dbserver -u`

   This setting is only valid during the session that uses this command window.

On Windows NT - Method Two

1. In your system properties environment, set the variable `DBIPATH` to **`pathname`** where *pathname* is the hard disk location for tape data.
2. Start the Server menu by entering `dbserver -u`, or by running the icon.

Set the optional DBIFITFILE setting

1. Set the **optional** setting:

   `DBIFITFILE=MAXSPACE`

   This specifies which file copying algorithm to use. If set to `MAXSPACE` the database install program iterates over partitions specified in **/sproot/nodes** until the largest partition which can accommodate the file is found. If you do not make this setting, the default setting is used, and the smallest partition is used to copy the file.

Using the Install menu

1. Select **6. Database Installation** from the ERL server menu. ERL

displays the Install menu.

Install Menu Option	Description
1. Install	Installs a database
2. Remove	Removes a database
3. List Installed Database(s)	Displays a list of installed databases
4. Display Installed Database(s)	Displays a detailed list of installed databases
5. Verify Database Integrity	Displays information about the database files
6. Exit	Returns to the server menu

2. Select **1. Install** from the Database Installation menu.

3. Indicate how you want ERL to locate the database.

   - Select **1. Search for candidates** to search for uninstalled databases on CD-ROM drives, hard drives, or network directories.
   - Select **2. Input candidates** to specify the location of the database you want to install. ERL prompts you for the location; enter the appropriate drive or directory, such as “H:”, and press **[Enter]**.

4. ERL lists the available databases. Enter the unique code to the left of the database you want to install and press **[Enter]**. You can enter multiple database codes separated by spaces, or use “*” to install all databases.

5. When prompted, specify CDROM, Magnetic Copy, or Magnetic Link installation for each database you are installing. Refer to “Installation Types” on page 4–5 for more information.

6. ERL asks if you want to initialize verification data for each database you install. Initializing the data will allow you to troubleshoot future problems, such as corrupt or missing database files. (See “Verifying Database Integrity” on page 4–13 for more information.) Enter y or n and press **[Enter]** for each database.

7. When prompted, enter y to confirm that you want to install the databases currently listed. ERL copies and links database files as appropriate, and returns you to the Database Installation menu.

Changing the Installation Type

ERL allows you to change the installation type for most installed databases. You can free up hard disk space by changing an installation from magnetic to CD-ROM, or improve searching speed by changing a CD installation to magnetic. Refer to "Installation Types" on page 4–5 for more information.

To change installation types:

1. Select **6. Change Install Type** from the Database Installation menu. ERL lists every installed database and its installation type.
2. Enter the ID of the database you want to modify and press **[Enter]**. You can enter multiple IDs separated by spaces, or you can use "*" to modify all installed databases.
3. Confirm that you want to modify the installation.
4. ERL lists the current installation type, and asks you to confirm that you want to change it to the other available type (for example, from CD-ROM to Magnetic.)
5. If necessary, insert the CD-ROM. ERL changes the installation type.

Mounting and Unmounting Databases

Mounting a database makes it available to all administrative accounts. The database remains unavailable to ERL accounts until you enable it. This allows you to test the database before making it widely available.

Mounting a Database

To mount a database:

1. Select **2. Mount Database(s)** from the ERL server menu. ERL lists all installed, unmounted databases.
2. Enter the ID of the database that you want to mount and press **[Enter]**.

3. You can enter multiple IDs separated by spaces, or "*" to mount all unmounted databases.

4. If you chose a database that is not magnetically installed, ERL prompts you for the CD. Insert the CD-ROM and press **[Enter]**. ERL mounts the databases.

Unmounting a Database

Unmounting a database makes it unavailable for searching. It does not remove the database or its license, however.

You may want to unmount a database to subsequently remove it, or to free up a CD-ROM drive for another database.

To unmount a database:

1. Select **3. Unmount Database(s)** from the server menu. ERL lists all mounted databases.

2. Enter the ID of the database that you want to unmount and press **[Enter]**. You can enter multiple IDs separated by spaces, or "*" to unmount all mounted databases. ERL unmounts the databases.

Enabling and Disabling Databases

Enabling a database makes it available to all authorized accounts, or to all accounts if authorizations are not required for the database.

To enable a mounted database from the ERL Server Menu:

1. Select **4. Enable/Disable Database(s)** from the ERL server menu. ERL lists all mounted databases.

2. Enter the ID of the database that you want to enable and press **[Enter]**.
   You can enter multiple IDs separated by spaces, or "*" to enable all disabled databases.

3. Enter y to enable the database.

To enable a mounted database from WebAdmin:

1. Log in to the server with an administrative account.

2. Click **Databases** on the toolbar. WebAdmin lists all mounted databases, and indicates whether or not each is enabled.

3. Check **Enabled** for the database you want to enable.

You can disable databases in similar fashion, in either WebAdmin or the ERL server menu.

Updating Databases

SilverPlatter updates databases on weekly, monthly, yearly, and other schedules, depending on the product. Updates are covered by your original license — you do not need to install a license with each update.

When you receive a new update disc or tape for an installed database, use the ERL server menu to replace the old data:

1. Install the update database as described in "Installing Databases" on page 4–5.

2. Mount the update database as described in "Mounting and Unmounting Databases" on page 4–9.

3. Select **7. Apply Database Update** from the ERL server menu. ERL lists all mounted databases.

4. Enter the ID of the update and press **[Enter]**. ERL disables the old database. If there are any accounts connected to the old database, ERL asks if you want to force them to log off.

5. Remove the superseded database as described in "Removing Databases" on page 4–12.

The update is given the same degree of availability as the superseded database. If the superseded database was enabled, the update is also enabled. If the superseded database was disabled, the update is also disabled.

Removing Databases

When a database has been superseded by an update, or when its license has expired, you should remove it. Removing a database does not delete associated statistics or license information.

To remove a database use the ERL server menu:

1. Unmount the database as described in "Unmounting a Database" on page 4–10.
2. Select **6. Database Installation** from the ERL server menu.
3. Select **2. Remove** from the database installation menu. ERL lists all installed databases.
4. Enter the ID of the database that you want to remove and press **[Enter]**.

   You can enter multiple IDs separated by spaces, or "*" to remove all installed databases.
5. Confirm that you want to remove the databases. ERL deletes the databases.

Displaying Database Information

You can display database information through the ERL server menu, WebAdmin, and ERLAdmin.

We recommend that you use WebAdmin for the following:

- Showing mounted databases

  Click **Databases** on the menu bar. WebAdmin displays all mounted databases, and indicates whether they are enabled and if they require authorizations.
- Showing connections

  Click **Connections** on the menu bar, and select **Accounts** or **Databases**. WebAdmin lists all connected accounts and the databases each is using, or all databases in use, and the accounts using each.

- Database Statistics

  Click **Statistics** on the menu bar. WebAdmin allows you to generate statistics by DatabaseID and Database Group, as well as Account, Portfolio, and IP Address.

We recommend that you use the ERL server menu to display information about databases that are not yet mounted:

1. From the ERL server menu, select **6. Database Installation**.
2. Select **3. List Installed Database(s)** for the ID, installation type, and name of every installed database,

   or

   select **4. Display Installed Database(s)** for detailed information about one or more installed databases, including date of installation, whether or not verification data is initialized, and the names of files copied to the hard drive.

Verifying Database Integrity

ERL allows you to check for missing or corrupted files for any database whose verification data you initialized during installation. (Refer to "Installing a Database" on page 4–6 for information on initializing verification data.)

If you or an end-user has a recurring problem connecting to a particular database, you can start trouble-shooting by checking the files for that database.

To verify database integrity:

1. From the ERL server menu, select **6. Database Installation**.
2. Select **5. Verify Database Integrity**. ERL lists all installed databases.
3. Enter the ID of the database that you want to check and press **[Enter]**.

   You can enter multiple IDs separated by spaces, or "*" to verify all installed databases.
4. Confirm that you want to verify the files for the selected database.

5. ERL asks if you want to repair problematic files or just report errors.
   - Select **1. Attempt repairs now** to replace any missing or corrupt files. ERL will ask you to insert the CD-ROM, and then will copy from CD any necessary files.
   - Select **2. Just report errors** for a list of bad files, if any.

Creating a Menu of Database Titles

You can create a menu that categorizes databases in SPIRS clients. You can also define the order of database groups within a category, and the chronological order of databases within a database group.

You can create this menu using WebAdmin, or by editing the configuration file in a text editor. WebAdmin automatically updates ERL when you save the menu (you do not need to run the **readmenu** command to bring it into effect). WebAdmin does not yet allow you to set the order of databases within a database group.

Using WebAdmin

1. Log in to the server with an administrative account.
2. Click **Databases** on the toolbar. WebAdmin lists all mounted databases, and indicates whether or not each is enabled.
3. Click **Database Menu**, then click **Edit Menu**.
4. Select and position the databases that you want to appear in the menu. Click **Preview Menu** to see how the menu will appear.
5. Click **Save**.

WebAdmin automatically updates ERL when you save the menu (you do not need to run the **readmenu** command to bring it into effect).

Note: WebAdmin does not yet allow you to set the order of databases within a database group.

Using a text editor

1. Open **\sproot\cfiles\dbmenu.eg** in a text editor. (If you have installed an ERL Server in the past, you will notice that this is a new location for this file.)

The file contains the following components.

Dbmenu Heading	Description
[Sn]	Sequence order [S1], [S2], [S3], etc.
MenuText=	Heading; displayed in SPIRS if the user is authorized to at least one database within the menu section.
Indent=	Indentation level, starting with 1. (0 is reserved for server names.)
Description=	Explanatory note; shown in SPIRS if the user asks for a description.
Databases=	List of two- and four-character codes of the database groups you want in the section.
Key=	Text string beginning with “$”; not used by SPIRS, and not required.
[order]	Determines the order of databases within a database group. In the example that follows, the line “AS=AS7A,AS7B” displays the ASFA databases in chronological order. Note: There is only one [order] section in the file. You can list all the database groups for which you have more than one database.

2. Modify the file to include the desired headings, databases, descriptions, and order.

3. Rename the file as **dbmenu.cfg**, and save it in the same directory.

4. Change to the **\sproot\bin** directory.

5. Run **commands\readmenu**. This causes ERL to update the menu in memory; otherwise, clients will not see the menu until you stop and start ERL.

Sample Menu in SPIRS

For example, you can create a menu that appears in clients as below:

- State University
  - Medical
    - MEDLINE (R) Advanced 1996-1997
    - MEDLINE (R) Advanced 1995-1996
    - MEDLINE (R) Advanced 1994-1995
  - Psychological
    - PsycLIT 1988-1992
  - Environmental
    - ASFA 1988-1996
    - ASFA 1978-1987
    - E-CD 1973-1988

Sample Menu in Editor

The sample menu above appears in a text editor as follows:

```
[S1]
MenuText=Medical
Indent=1
Description=Medical databases
Databases=MEDS
Key=$medical

[S2]
MenuText=Psychological
Indent=1
Description=Psychological databases
Databases=PL
Key=$psychological

[S3]
MenuText=Environmental
Indent=1
Description=Aquatic Science databases
Databases=AS,C1
Key=$environmental

[order]
MEDS=MEDS008A,MEDS008B,MEDS008C
AS=AS7A,AS7B
```

Chapter 5

Controlling Access to ERL

Introduction

This chapter explains how to set up and administer user accounts, and system security. It describes four measures of security provided in ERL:

- Setting IP address checking

  Determines precisely which machines can log in to ERL

- Managing Accounts

  Define passwords, permissions, and expiration dates

- Managing Portfolios

  Determine how many accounts can access a product simultaneously

- Authorizing Accounts

  Specify what products each account can access

We recommend that you use WebAdmin for these tasks, although you can carry out some of them using ERLAdmin.

Setting IP Address Checking

ERL allows you to specify which IP addresses (that is, which machines) can access your server. You first specify these addresses when installing ERL; you can add, delete, or edit them at any time afterwards.

You can enter individual IP addresses, or enter a range of addresses using network masks.

A full description of IP addressing and network masks (also called subnet masks), is outside the scope of this manual. To put it simply, there is only a limited number of IP addresses available globally, and subnetting is a way of creating additional local IP addresses within an organisation. These additional IP addresses are only relevant within that organisation.

For example, if you enter the following:

```
123.45.67.89 255.255.254.0
```

this would allow access to all addresses on either of the class c networks, that is, all the addresses from `123.45.67.1` to `123.45.67.254`, and all from `123.45.66.1` to `123.45.66.254`.

If there is no subnet mask, the IP address is sufficiently specific. If you enter the following:

```
123.45.67.0
```

this would allow access to `123.45.67.1` to `123.45.67.254` (the whole class c network.)

You need to know all the IP addresses that you want to be able to access your server, and the subnet masks if your organisation uses subnetting.

For information on creating account-specific IP address sets, refer to "Creating User-Specific Information" on page 6–2.

Using WebAdmin

1. Log in to ERL with *admin*/admin or other administrative account.
2. Click **Utilities**, and select **IP Address Sets**. WebAdmin displays the IP Address Sets window.
3. Enter the addresses that you want to include, and any that you want to specifically exclude. Refer to the WebAdmin Help for details on specifying addresses.
4. Click **Save**. WebAdmin saves the IP addresses in **ipincl** and **ipexcl**, both in **\sproot\cfiles**.

Using a Text Editor

You can also edit **ipincl** and **ipexcl** in a text editor on the server. To give an IP address access to your server you add that IP addresses to **ipincl**. To exclude a specific address from having access to your server, you add the address to **ipexcl**.

IP Address Logging

You can set the ERL Server logging system so that when you view connections (using option **8 Show Connections**, in the ERL server menu) you can show either the IP address of the client (the end-user) or the IP address of both the client and the gateway (IP address of the WebSPIRS server, for example.)

To change the setting for IP address display:

1. Open the file **/sproot/bin/erlsrvr.cfg** in a text editor.
2. At the following setting:

   `show_ipaddress=`

   - Set 0 for ERL 2.x style IP address reporting. That is, display client address or gateway address
   - Set 1 to display the client IP address only.
   - Set 2 to display both the client and the gateway IP addresses.
3. Save and close the file.

Note: This setting does *not* affect the IP address logged in a statistics log.

Note: WebAdmin logs on and off the ERL server whenever it carries out any activity, so you will not necessarily see WebAdmin among the displayed connections. If it is there, the client or gateway IP address will be displayed, irrespective of the `show_ipaddress=` setting.

Managing Accounts

When ERL is first installed, three accounts are created:

- *admin*

  This is your administrative account, which you use to perform all administrative tasks. The initial password is “admin” for security

reasons; you may choose to change the password and/or rename the account. You can also create one or more other administrative accounts.

- *anonymous*

  This provides “anonymous” logins, in that no password is required. It has no other special privileges, however. Users cannot login anonymously from excluded IP addresses; and users will only see databases that do not require authorizations, or databases to which the account is specifically authorized. You can delete this account.

- *sp*

  This account is for SilverPlatter’s Technical Support department to help you troubleshoot ERL problems. It is recommended that you retain this account.

You can create as many other accounts as are appropriate.

Creating an Account

You can create new accounts in WebAdmin or ERLAdmin.

Using WebAdmin

1. Log in to ERL with *admin*/admin or other administrative account.
2. Click **Accounts**, and then click **New**.
3. Fill in the details for the account. (Use the online help if you are unsure about any of the details.) Then click **Save**.

Using ERLAdmin

1. Login to your server as *admin*/admin, or as another administrative account.
2. Select **Add User** from the Users menu. ERLAdmin displays the *Add User* screen.
3. Fill in the available fields, moving from field to field with **[Tab]** and **[Shift]**+**[Tab]**.
4. Enter `y` at the 'Accept' prompt to add the account, or press **[Esc]** to exit without saving the new account.

The following fields appear on the *Add User* screen.

Field	Description
Name	Login for the account (up to 31 characters)
Ident	Unique identifier created by ERL. See "Creating User-Specific Information" on page 6–2
Ref	Reference for the account: often used for email addresses.
Created	Date the account is created
Description	Descriptive text for account
Password	Password for the account (up to 16 characters)
PW Changed	Date of last password change
Maximum Charge	Maximum transaction and time costs allowed
PW Life	Lifespan of password; user will be prompted for a new password when this one expires
Disabled	If non-zero, account cannot access ERL
Expiry Date	Date on which account is disabled
Modify Password	If Y, account can change password at login
Last Update	Last time account was modified
Last Login	Date of last login
Total Time	Total time connected to ERL
Data Charge	Transaction costs accumulated by the account (Only relevant for certain database families: if relevant, there is a value on the license sheet)
Time Charge	Time costs accumulated by the account (Only relevant for certain database families: if relevant, there is a value on the license sheet)
Current Users	Current logins through the account

(Sheet 1 of 2)

Field	Description
Total Logins	Total logins for the account
Account Admin	If Y, account has full administrative privileges
Database Admin	If Y, account can access disabled databases
Guest Admin	If Y, user account can view, but not modify, values in ERLAdmin
Maximum Users	Total simultaneous logins allowed through the account
Addresses	Name of file (in the format *@filename*) listing allowable IP addresses; or, a specific IP address. If a filename, the file must be in **\sproot\cfiles** or **\sproot\cfiles\ident**, where *ident* is the value from the Ident field above.
Excluded	Name of file (in the format *@filename*) listing excluded IP addresses; or, a specific IP address. If a filename, the file must be in **\sproot\cfiles** or **\sproot\cfiles\ident**, where *ident* is the value from the Ident field above.

(Sheet 2 of 2)

Editing an Account

You can edit accounts with WebAdmin or ERLAdmin.

Using WebAdmin

1. Log in to ERL with *admin*/admin or other administrative account.
2. Click **Accounts**, and then click on the account you want to edit.
3. Make any changes for the account. (Use the online help if you are unsure about any of the details.) Then click **Save**.

Using ERLAdmin

1. Login to your server as *admin*/admin, or as another administrative account.
2. Select **View/Edit User** from the Users menu.

3. Press **[Enter]**. ERLAdmin lists all accounts. You can also enter the first few characters of the account and ERLAdmin lists only matching accounts.

4. Position the cursor on the desired account with the up and down arrow keys, or type a letter to move to the next account starting with that letter.

5. Select the highlighted user account by pressing **[Enter]**. ERLAdmin displays the *View/Edit User* screen.

6. Change the desired values and save the account. Refer to "Creating an Account" on page 5–4 for more information.

Deleting an Account

You can delete accounts with WebAdmin or ERLAdmin.

Using WebAdmin

1. Log in to ERL with *admin*/admin or other administrative account.

2. Click **Accounts**, and then select any accounts you want to delete.

3. Click **Delete Checked Accounts**.

Using ERLAdmin

1. Login to your server as *admin*/admin, or as another administrative account.

2. Select **Delete Users** from the Users menu.

3. Press **[Enter]**. ERLAdmin lists all accounts.You can also enter the first few characters of the account and ERLAdmin lists only matching accounts.

4. Highlight one or more accounts from the list by moving with the up and down arrow keys and then pressing **[Enter]**.

5. When you have selected the accounts that you want to delete, press **[F2]**.

6. ERLAdmin asks you to confirm the deletions. Enter y, or n to cancel the deletions.

Importing Accounts

You can import accounts if you have a list of existing users on another system or another ERL server. You can also import accounts to change their expiry dates. If an import file contains information for existing accounts, those accounts are updated.

You can import users with ERLAdmin:

1. Login to your server as *admin*/admin, or as another administrative account.

2. Select **Import Users** from the Users menu. ERLAdmin displays the *Import Users from File* screen, which contains the following information.

Import User Field	Description
Import File	Full pathname of the DOS file containing the user account names to import
Log File	Full pathname of the DOS file for storing log information
PW Life	(not implemented)
Disable	If not zero, imported user accounts must be enabled after they have been imported
Expiry Date	Date on which the imported user accounts will expire (MM/DD/YYYY)
Modify Password	If Y, user accounts can change password at login
Maximum Charge	Total charge a user account may accrue (zero for no limit)
Maximum Users	Total sessions that can share this user account

Note: These fields effect all of the accounts in the import file. You can edit the accounts after you import them, if necessary.

3. Fill in the available fields, moving from field to field with **[Tab]** and **[Shift]**-**[Tab]**.

4. Enter y at the 'Accept' prompt to import the user accounts in that file, or press **[Esc]** to exit without importing the file.

The input file must contain one line per account; each line must contain the following items, separated by commas:

- Username (required, up to 31 characters)
- Password (optional, default none, up to 16 characters)
- Description (optional)
- Reference (optional)

If there is no value for an item in this list, you still must include the commas. For example, if a user account has no description, the format would be as follows:

```
Username,Password,,Reference
```

If no password is specified in an import file, the first client to access ERL through that user account is given the opportunity to assign a password.

Managing Portfolios

Portfolios establish the expiration date and maximum number of simultaneous users for databases.

When ERL is first installed, two portfolios are created:

- L-EZTA — This enables the Explain database, which is required by Z39.50. Refer to "The Z39.50 Option" on page 10–1 for more information.

- L-SAMPLE — This enables you to install the Sample database, Knowledge Base, and Electronic Directory of Databases, all of which are on the SilverPlatter Software Resource CD.

Additional portfolios are created when you install database licenses. Ultimately, it is these "license" portfolios that determine the expiration dates and maximum users for all databases. You cannot edit license portfolios.

You can create "child" portfolios from licenses to control access to your databases more precisely. Situations in which you might want to create child portfolios include:

- You have more potential users of a database than are allowed by the

license for that database, and you want to give some users a better chance than others of accessing the database.

- You have a license portfolio that covers many years and multiple disks of data, and you want to provide only special-interest groups with access to the entire span.
- You are administering a library consortium, and want to divide database usage amongst the constituent libraries.

Creating a Portfolio

You can create portfolios in WebAdmin or ERLAdmin.

Using WebAdmin

1. Log in to ERL with *admin*/admin or other administrative account.
2. Click **Portfolios**. Locate the portfolio from which you wish to make a new portfolio, then click **New**.
3. Fill in the details for the portfolio. (Use the online help if you are unsure about any of the details.) Then click **Save**.

Using ERLAdmin

1. Login to your server as *admin*/admin, or as another administrative account.
2. Select **Add Portfolio** from the Portfolio menu. ERLAdmin displays the *Portfolio Description* screen, which contains the following fields:

Portfolio Field	Description
Portfolio Name	Name of the portfolio
Description	Information about the portfolio
Parent	Portfolio from which this one is derived (select from a list)
Databases	Database IDs affected by the portfolio
Expiry Date	Date on which the portfolio expires
Disabled	If non-zero, portfolio cannot be used

Portfolio Field	Description
Maximum Users	Total simultaneous sessions allowed
Current Users	Number of accounts currently accessing the portfolio
Created	Date portfolio is created (filled in by ERL)
Last Update	Date portfolio was last modified (filled in by ERL)

3. For each available field, enter the information or select the choice.

4. Type y in the *Accept* field to create the portfolio.

Editing a Portfolio

You can edit child portfolios that you have created, but not license portfolios created by ERL. You can edit portfolios in WebAdmin or ERLAdmin.

Using WebAdmin

1. Log in to ERL with *admin*/admin or other administrative account.

2. Click **Portfolios**, and then click on the portfolio you want to edit.

3. Make any changes for the portfolio. (Use the online help if you are unsure about any of the details.) Then click **Save**.

Using ERLAdmin

1. Login to your server as *admin*/admin, or as another administrative account.

2. Select **View/Edit Portfolio** from the Portfolio menu. ERLAdmin displays the *Portfolio Description* screen

3. For each available field, enter the information or select the choice.

4. Type y in the *Accept* field to edit the portfolio. The portfolio takes its new values; accounts accessing a database through the portfolio are not affected until they reconnect.

Deleting a Portfolio

You can delete child portfolios that you have created, but not license portfolios created by ERL. You can delete portfolios in WebAdmin or ERLAdmin.

Using WebAdmin

1. Log in to ERL with *admin*/admin or other administrative account.
2. Click **Portfolios**, and then select any portfolios you want to delete.
3. Click **Delete Checked Portfolios**.

Using ERLAdmin

1. Login to your server as *admin*/admin, or as another administrative account.
2. Select **Delete Portfolio** from the Portfolio menu. ERL lists all portfolios.
3. Highlight the portfolios you want to delete.
4. Confirm that you want to delete the portfolios. The portfolios are deleted. Accounts currently accessing a database product through these portfolios are not disconnected until they disconnect themselves.

Authorizing Accounts

When you first install, mount, and enable a database, it is only available to administrative accounts. If you want to make the database available to non-administrative accounts, you must explicitly authorize those accounts to the database portfolio, or modify the database so that it does not require authorizations.

Requiring Authorizations for a Database

In ERL 4.x, newly installed databases require authorizations; unauthorized accounts cannot access the databases. You can toggle this requirement for any database, in WebAdmin or ERLAdmin.

Using WebAdmin

1. Log in to ERL with *admin*/admin or other administrative account.
2. Click **Databases**. WebAdmin lists all mounted databases on the server. Listed for each database are the name, database group, database ID, and an indication of whether or not the database is enabled, and whether or not it requires authorizations.
3. Uncheck **Use Auths** for a database to allow all accounts to access that database.

   Check **Use Auths** to allow only authorized accounts to access the database.
4. Click **Save**.

Using ERLAdmin

1. Login to your server as *admin*/admin, or as another administrative account.
2. Select **View/Edit Database** from the Databases menu.
3. Select the database you want to set the requirement for.
4. Type y in the *NoAuth* field to allow all accounts to access that database.

   Type n in the *NoAuth* field to allow only authorized accounts to access the database.

5. Type y in the *Accept* field to accept the change.

Authorizing Accounts to Portfolios

You define which accounts can access which database portfolios on your server. You can do so in WebAdmin or ERLAdmin.

Authorizing Many Accounts to One Portfolio

After installing a new database, you will want to authorize accounts to access the database. You can authorize accounts in WebAdmin:

1. Log in to ERL with *admin*/admin or other administrative account.
2. Click **Portfolios**. WebAdmin lists the database portfolios on your server.
3. Click on the portfolio to which you want to authorize accounts. WebAdmin displays the *Edit Portfolio* window.
4. Next to the Authorized Accounts list, click **Change**. WebAdmin displays the *Change Account Authorizations* window, which lists all the accounts on your server. (You can also click **Copy**, to copy the authorizations from another portfolio.)
5. Check the accounts that you want to authorize to the portfolio.
6. Click **OK**. WebAdmin adds all the checked accounts to the Authorized Accounts list for the current portfolio.
7. Click **Save**.

Authorizing One Account to Many Portfolios

After creating a new account, you will want to authorize that account to access one or more database portfolios. You can do so in WebAdmin:

1. Log in to ERL with *admin*/admin or other administrative account.
2. Click **Accounts**. WebAdmin lists the accounts on your server.
3. Click on the account that you want to authorize. WebAdmin displays the *Edit Account* window.
4. Next to the Authorized Portfolios list, click **Change**. WebAdmin displays the *Change Portfolio Authorizations* window, which lists

all the portfolios on your server. (You can also click **Copy**, to copy the authorizations from another account.)

5. Check the portfolios to which you want to authorize the current account.

6. Click **OK**. WebAdmin adds all the checked portfolios to the Authorized Portfolios list.

7. Click **Save**.

Chapter 6

Messages to Users

Introduction

This chapter explains the ways you can communicate with your users.You can communicate with user accounts in two ways: you can send a message at any time, and you can provide a “message of the day” that users see when they first log in.

Sending a Message

To send a message to connected accounts, use the ERL server menu:

1. Select **9. Send Message** from the ERL server menu.
2. Enter the text of your message. For example, type:

   ```
   The system is about to come down for quar-
   terly maintenance. Please disconnect.
   ```

3. To send a message to a specific account, or to users of a particular database, precede your message with the account in angle brackets (<>), or the database ID in square brackets ([]). For example, type:

   ```
   <johng> You are now authorized to use FSTA.

   [MLJ5] This database will be updated in 30
   minutes. Please watch for the new data.
   ```

4. Press **[Enter]** to send the message.

Message of the Day

Creating a message of the day is most easily done through WebAdmin.

1. Login to ERL with an administrative account.
2. Click **Utilities** on the menu bar, and select **Message of the Day**.
3. Enter a message.
4. Click **Save**. WebAdmin saves the message in **\sproot\cfiles\motd**, and users see the message whenever they connect to ERL.

Creating User-Specific Information

ERL allows you to implement several features in a system-wide or user-specific fashion:

- Message of the Day
- Library Holdings

To create a user-specific version of a feature:

1. Determine the ID of the user's account. You can do this in WebAdmin or ERLAdmin:
   - In WebAdmin: Edit the account. The *Edit Account* window includes an "ID" field.
   - In ERLAdmin: View the account. The *Account* window includes an "Ident" field.
2. At the ERL server, change to **/sproot/cfiles**.
3. Make a new subdirectory. Name it the same as the user ID.

   Note: User IDs are eight-character hexadecimal values, such as "00000b25". Currently, WebAdmin strips leading zeros from user IDs; you need to add enough leading zeros to the value WebAdmin reports to get the true user ID.
4. Put the appropriate files in this directory to implement the desired

feature. Listed below are the required files for each feature:

- Message of the Day — **motd**
- Library Holdings — **splha.lhm**, **splha.lhd** and **splha.lhi**

For more information on these features, refer to "Message of the Day" on page 6–2, and "Library Holdings" on page 11–1.

User-specific IP address sets

In addition to the above features, you can create user-specific IP address sets. This allows you to specify the terminals from which an account can connect to ERL. You can accomplish this through WebAdmin or ERLAdmin.

In WebAdmin:

1. Click **Utilities** on the toolbar, and select **IP Address Sets**.
2. In the *IP Address Sets* window, click **New**.
3. Enter a set name, and specify the addresses to include and exclude.
4. Click **Save**.
5. Click **Accounts** on the toolbar.
6. Click on the desired account. WebAdmin displays the *Edit Account* window.
7. In the IP Address Set drop-down list, select the set you just created.
8. Click **Save**.

For more information on creating IP address sets, refer to "Setting IP Address Checking" on page 5–1.

Chapter 7

Obtaining Statistics

Introduction

This chapter explains the way you can analyze the use of your ERL Server and databases, by looking at log information. You can use the ERL statistics utility to use the log information to answer the following sorts of questions:

- Do you have the right databases? (Are you paying for some licenses that are never used?)
- Do you have sufficient licenses, so that all users can access the database when they want to?
- Which user accounts are accessing which databases?
- How many people are accessing databases using each user account?
- How often are people unable to log in to a database because all licenses are in use? And how many times does this happen in a given time period?
- What time of day is there most activity on the server?

ERL logs statistics for every client session. Included in the log are:

- login and logout time
- length of connection period
- account name and ID
- selected databases, and portfolios from which they were selected

- number of searches
- number of records retrieved, with abstracts and total

This chapter describes the statistics files, and the configuration settings that determine how the files are managed. It also provides an introduction to the statistics features of WebAdmin.

Note: Log reports generated by WebAdmin do not currently show the logout time.

Note: If users are searching with Show Intermediate Results selected, the statistics files may show all the searches, including interim searches. Also, if users check their selected databases in the Database Selection screen, but do not change the settings, this can result in additional logins being counted in the statistics. The number of records and number of abstracts are included in the statistics to give an indication of database usage: the number of records shown is the number of records returned for display, and not the actual number of records found.

Statistics Files

ERL 4.05 stores statistics in two files, *date***.log** and *date***.idx**, in **/sproot/erlstat**. The *date***.log** is an ASCII file, so you can read it in a text editor. The file name is a date stamp, so a file started on 22 March 1999 would be called **19990322.log**. If you set ERL to split your statistics file at a regular interval (explained at "statsplit" on page 7–3), or if you run the manual statistics split option (explained at "10. Split Statistics" on page 4–2), the new file will have an additional letter added to the file name, (**19990322A.log**, **19990322B.log** and so on), for each time you make a split during the same day.

Note: When you upgrade to ERL Server v4.05, your existing statistics files (those created in ERL 4.x) are converted to the new format, and then the original files are deleted. If you want to archive the files in the old format, or if you want to retain statistics files created in a version earlier than v4.x, we recommend you make a backup of the files before you start to install v4.05.

Setting Statistics Configuration Settings

The ERL configuration file (**/sproot/bin/erlsrvr.cfg**) includes several statistics parameters.They all have default settings that are sufficient to allow you to create statistics reports. However, in some circumstances

you might want to change the settings by editing the configuration file. For example, if you planned to create hourly statistics reports, it would be sensible to set the feature for taking snapshots of current connections (explained at "statdump" on page 7–3) to hourly, to make this run most efficiently.

Note: Statistics logging only logs the client IP address, it is not affected by the `show_ipaddress=` setting.

To change the configuration file:

1. Open **/sproot/bin/erlsrvr.cfg** in a text editor.

2. Edit any of the parameters listed in the following table:

Parameter	What it specifies	Default setting	Comment
erlstat	The directory in which ERL stores the statistics files.	**/sproot/erlstat**	You can change the setting to another directory on another drive or filesystem, if necessary.
statsplit	The frequency at which ERL closes the existing *date***.log**file and creates a new file. Once ERL has created a new file, you can remove, read, and archive the old file.	**monthly**	We recommend **monthly**. Other options are **never hourly daily monthly yearly.**
statdump	The frequency at which ERL takes snapshots of the current connections. These snapshots allow ERL to determine whether any connections were established prior to a given statistical report, without processing the entire statistics log. Both the speed of statistical reports and the size of statistics files increase slightly with more frequent statistics dumps.	**hourly**	We recommend **hourly**. Other option is daily.

3. Save the file, and restart ERL for the statistics settings to take effect.

Creating Statistics Files with WebAdmin

WebAdmin allows you to generate a wide range of statistical reports against your ERL server. You can focus your reports on accounts, databases, portfolios, or IP addresses, or any combination.

1. Log in to ERL with *admin*/admin, or other administrative account.
2. Click **Statistics**. WebAdmin displays the *Statistics* window, which lists all the statistical reports you have saved with the current account.
3. Click **New**. WebAdmin displays the *New Report* window.
4. Enter a Name and Description for the report.
5. Select the date range for which you want to collect statistics.
6. Select the Style, or granularity of the report. The options are Per Session, Hourly, Daily, Monthly, and Totaled.
7. Specify whether you want the statistics sorted chronologically or alphanumerically.
8. Select zero or more Key Fields to feature in your report. The possible key fields are Account Name, Database ID, IP Address, DB Group, and Portfolio. (If you select no keys, you generate information about all activities.)
9. Select the Data Items you want to include in the report.
10. Click **Run Now**. WebAdmin retrieves statistics from ERL and displays the *Statistics* window.

You can then print the report, or export it to use in a spreadsheet.

Refer to the WebAdmin online help for more detailed information about statistics.

Regenerating .idx files

The ERL server software includes a utility that lets you regenerate *date*.**idx** files. This means that when you are backing up your statistics files, you do not need to backup the index files, because you can regenerate them as and when you need them. You might want to regenerate the *date*.**idx** files in the following additional circumstances:

- If you are moving statistics files from UNIX to a PC, or the other way round, which means the information in the index files is no longer accurate.
- If you have modified a **delete.log** file (not normally advised.)

To regenerate the files:

- At the command line, enter the following line:

  ```
  statidx filename.log filename.log
  ```

  This creates a new index file for each log file. If an index file exists, the command overwrites the existing file.

Chapter 8

Distributing SPIRS Clients

Introduction

This chapter includes instructions for configuring and distributing SPIRS search software. This software is the client part of the ERL client server system. ERL clients are available for MS-DOS, Macintosh, Windows, and UNIX platforms, and for use over the World Wide Web.

The PC-SPIRS, UNIX-SPIRS, and WebSPIRS clients are specially written to work with an ERL system. MacSPIRS and WinSPIRS work both with ERL and in stand-alone mode. Each SPIRS client has the same functionality as its stand-alone counterpart.

For information on search and retrieval using the SPIRS software, see the *User's Manual* for each client.

ERL search and retrieval clients are available on the SilverPlatter Software Resource CD and from the SilverPlatter ftp site. For more information see "Contacting SilverPlatter" on page 1–4.

WebSPIRS

WebSPIRS is an http-gateway which supports searching of SilverPlatter databases using a compatible browser. SilverPlatter supports two versions of WebSPIRS: v.3.1 and v. 4.0.

WebSPIRS v. 3.1

WebSPIRS v. 3.1 can be used in conjunction with Netscape 2.0+ or Microsoft Internet Explorer 4.0+ to search databases loaded on an ERL server. WebSPIRS 3.1 can be installed on any of the following platforms: Linux, Solaris, SCO, AIX, or Windows NT.

To access ERL, end-users point their Web browsers to the WebSPIRS application. The Uniform Resource Locator (URL) is in the form **http://webspirs_machine/cgi-bin/webspirs.cgi** where *webspirs_machine* is the IP address or machine name of the Web server running WebSPIRS.

For the most up-to-date information about WebSPIRS software, see the *WebSPIRS Implementor's Guide* available online at SilverPlatter's Web page (**http://www.silverplatter.com**). The documentation available on this Web page covers introductory material, installation, configuration, customization, frequently asked questions, and background information.

You need to install the appropriate WebSPIRS client file package on a Hypertext Transfer Protocol (HTTP) server at your site. Use a forms-capable browser for testing the WebSPIRS gateway.

You will need to tell WebSPIRS the IP address of your ERL server, as you would with any other ERL client (see "Editing the ERL Client Configuration File" on page 8–16). You will also need to configure WebSPIRS for your system. These settings are covered in the *WebSPIRS Implementor's Guide*.

WebSPIRS v. 4+

WebSPIRS 4.0+ is compatible with the following browsers: Netscape 3.01 or higher, or Microsoft Internet Explorer 4.0 or higher. JavaScript support must be enabled in the browser.

To access ERL, end-users point their Web browsers to the WebSPIRS application. The URL is in the form:

http://<hostname or IP address>:<port number>/?

You need to install the appropriate WebSPIRS client file package on one of the following server platforms: Linux, Solaris, SCO, AIX, or Windows NT. Note, however, that WebSPIRS v.4+ does not require external Webserver software as it incorporates server software specific to the WebSPIRS 4+ application. This will not interfere in any way with the external Webserver software you may be using to support your other Web-based applications.

You will need to tell WebSPIRS the IP address of your ERL server, as you would with any other ERL client (see "Editing the ERL Client Configuration File" on page 8–16.) You will also need to configure WebSPIRS for your system.

For complete details, refer to the *WebSPIRS v.4+ Implementor's Guide* online at SilverPlatter's Web page (**http://www.silverplatter.com**).

WinSPIRS

You can use SilverPlatter's WinSPIRS retrieval software to access an ERL system. You install WinSPIRS on individual workstations or on a network fileserver.This section describes how to use the WinSPIRS Reconfiguration program to change WinSPIRS options so that end users can access ERL server(s).

Hardware and Software Requirements

The WinSPIRS ERL client requires a computer that meets the following criteria:

Component	Minimum Requirements
Computer	80386sx IBM-compatible PC
Memory	4 MB (8 MB for Windows for Workgroups or Windows 95)
Video	monochrome VGA (color recommended)
Operating System	MS-DOS or PC-DOS 3.1 or higher Windows 3.1 or higher
Hard Disk	8 MB
Floppy Drive	One high density
Other	Windows-compatible mouse Windows-compatible printer
Network Protocols	Choose from: TCP/IP WINSOCK.DLL

Getting the Software

WinSPIRS is distributed separately from the ERL software. You can download the WinSPIRS software from a SilverPlatter ftp site. WinSPIRS is also available on floppy disk and on the Software Resource CD.

Preparing WinSPIRS for ERL

You can change WinSPIRS options during installation, or anytime afterward with the Reconfig program that comes with WinSPIRS.

1. From the Program Manager, double-click the WinSPIRS Reconfig program icon in the WinSPIRS program group or select WinSPIRS Reconfiguration from the Start menu if you are using Windows 95.

   The Configuration Options dialog box appears.

2. Click **ERL Options**. WinSPIRS Reconfig displays the ERL Options dialog box.

3. Specify the mode by which users access databases:

   - Select **ERL Client only** to allow access only to databases loaded on the ERL server.
   - Select **Local and ERL** to allow access to databases loaded on local CD-ROM drives as well as those loaded on the ERL server.

4. If you have ERL workstations secure from unauthorized users, you can specify automatic login information. Users will be automatically logged in to the specified servers.
   To add login information, click the **Add** button. WinSPIRS Reconfig displays the New Server dialog box.

5. In the New Server dialog box, type the Server ID, the Username, and the Password for each server address listed in **erlclnt.cfg**.

   Each Server ID should begin with “SP$”, such as “SP$SERVER_ID”. You can verify your server IDs with ERLAdmin or your ERL Server Registration card.

   Click **OK** when complete. You return to the ERL Options dialog box.

   To remove automatic login information, select the login you wish to remove by clicking on it, and then click **Remove**.

6. When you finish editing the settings in the ERL Options dialog box click **OK**. You will return to the WinSPIRS Configuration Options dialog box referred to in step 2.

7. Click **Save** to save your changes and exit the reconfig program. The

new information will be written to the **winspirs.ini** file.

8. Edit the **erlclnt.cfg** file to point at your ERL server. Please refer to "Editing the ERL Client Configuration File" on page 8–16 for more information.

MacSPIRS

This section instructs you on how to set up and distribute the MacSPIRS client software so that end users automatically log in to your ERL servers when they install MacSPIRS.

Hardware and Software Requirements

The MacSPIRS ERL client requires a computer that meets the following criteria:

Component	Minimum
Macintosh	SE
system software	6.0.7
memory	2 MB for System 6.x
video	standard
hard disk	7 MB
floppy drive	one low density
network protocols	Choose from: MacTCP version 2.02 or higher OpenTransport

You will also need Stuffit or Stuffit Lite and BinHex in order to prepare your MacSPIRS software for use with ERL.

Getting the Software

MacSPIRS software is distributed separately from the ERL software. You can get MacSPIRS from a SilverPlatter ftp site. MacSPIRS is also available on floppy disk and on the SilverPlatter Software Resource CD.

Preparing MacSPIRS for Distribution

The basic steps for preparing MacSPIRS are:

1. If you get MacSPIRS from a SilverPlatter ftp site you need to unBinHex the file **macspirs.sea.hqx**
2. Extract the MacSPIRS files from the **macspirs.sea** archive file
3. Edit the ERL client configuration file
4. Preconfigure the Installer
5. Update the **macspirs.sea** file

Extracting the MacSPIRS files

SilverPlatter distributes the MacSPIRS software as a self-extracting archive, prepared with Stuffit from Aladdin Systems, Inc. You must extract the MacSPIRS files from the archive before preparing the client software. This step is not necessary if you get the MacSPIRS software from the Software Resource CD.

To extract the MacSPIRS files:

1. Double-click on **macspirs.sea** and click **Continue**.
2. Select a drive and folder in which to place the extracted files, and click **Save**.

Editing the ERL Client Configuration File

You need to add information to the ERL client configuration file (**erlclnt.cfg**) so that the MacSPIRS client points to the ERL server or servers. Please refer to "Editing the ERL Client Configuration File" on page 8–16.

Preconfiguring the Installer

The MacSPIRS Installer is used to create MacSPIRS applications. You can set up usernames and passwords within the Installer before distributing it to provide end users with autologin to your ERL server(s). Then the end users will not need to know the username and password.

To preconfigure the Installer:

1. Double-click on the extracted Installer icon.

2. Select **Preconfigure Defaults** from the opening dialog box and click **OK**.

3. For each server address listed in **erlclnt.cfg**, enter the corresponding Server ID in the Server ID column.

   You can enter up to five IDs; each should begin with "SP$", such as "SP$SERVER_ID". You can verify your server IDs with ERLAdmin or your ERL Server Registration card.

   You can omit the Server IDs and enter a single User ID and Password as described in the next step; MacSPIRS will use the information to log on to all servers listed in **erlclnt.cfg**.

4. For each Server ID, you can enter a User ID and Password. MacSPIRS applications will use this information to automatically log on to that server.

   You can enter a question mark ("?") for the Password and users will be prompted for it, or you can omit the User ID and Password, and users will be prompted for both.

5. Click **OK** to complete the configuration.

Testing the Installer

After preconfiguring the Installer, you should test it to verify the server connections.

To test the Installer:

1. Double-click on the Installer icon.

2. Select **Full Installation** from the opening dialog and click **OK**.

3. Specify a folder and name for the new application, and click **Save**.

4. Select **ERL Client Only** or **Both (Client & Standalone)** and click **OK**.

5. Select the software options for the new application and click **OK**.

6. Click **OK** to accept the Auto Login Setup.

7. When the installation is completed, run the new MacSPIRS

application. If you cannot access all of the intended ERL servers, double-check the server addresses listed in **erlclnt.cfg** and the IDs listed in the Installer.

When you are satisfied with the server connections, you can conceal the ERL Auto Login Setup from the end users.

Concealing the ERL Auto Login Setup

If you conceal the ERL Auto Login Setup, the dialog box will not appear when end users run the Installer.

To conceal the login setup:

1. Double-click on the Installer icon to rerun the Installer.
2. Select **Preconfigure Defaults** from the opening dialog box and click **OK**.
3. Check **Conceal this Dialog** and click **OK**.

Updating macspirs.sea

Updating the **macspirs.sea** archive enables you to distribute MacSPIRS as a single, compressed file. This allows you to distribute on a low-density floppy and reduces the number of files that need to be converted with BinHex if you distribute on a UNIX server.

To update **macspirs.sea**, add to it the modified **erlclnt.cfg** and Installer using Stuffit. If you do not own a copy of Stuffit, you can get a shareware copy of StuffitLite from AppleLink.

Distributing the Software

After preparing the MacSPIRS software, your task is to distribute it to your end users. You can distribute the software on a Macintosh server, floppy disk, or UNIX server.

If you have updated **macspirs.sea**, copy it to the Macintosh server.

If you have not updated **macspirs.sea**, copy the entire MacSPIRS folder to the server. Do not include the old **macspirs.sea**, as it contains the unprepared files that would allow end users to circumvent the defaults you have set up.

If you have updated **macspirs.sea**, copy it to a standard or high-density floppy disk and duplicate the disk.

If you have not updated **macspirs.sea**, copy the entire MacSPIRS folder to a high-density floppy disk -- it is too large to fit on one standard double-density disk. Do not include the old **macspirs.sea**, as it contains the unprepared files that would allow end users to circumvent the defaults you have set up.

Note: If you are distributing MacSPIRS to Mac SE users, you must use standard double-density (740K) disks, as these machines cannot read high-density disks.

Distributing on a UNIX Server

Distributing MacSPIRS on a UNIX server requires several steps.

First, you must convert the updated archive to preserve it during the file transfer process. BinHex has been provided for this purpose:

1. Double-click on BinHex.
2. Select **Application->Upload** from the File menu.
3. Select the updated **macspirs.sea** and click **Open**.
4. Name the converted file and click **Save**.

Next, copy the converted archive to the UNIX server.

You must then distribute BinHex (for re-converting the archive) to any user who does not have a copy.

Note: You cannot distribute BinHex on the UNIX server because it would be corrupted during the file transfer process.

UNIX-SPIRS

Use this section to prepare your UNIX-SPIRS clients for distribution.

Hardware and Software Requirements

The following table outlines the hardware necessary to run UNIX-SPIRS on the supported platforms.

	SCO UNIX	Solaris[1]
Computer	486DX/33 MHz IBM compatible PC	SPARC station 10
Memory	16MB plus 1MB per simultaneous user	16MB plus 2MB per simultaneous user
Video	standard	standard
Operating System	SCO System 5 or higher	Sun Solaris version 2.3 or higher
Hard Disk	2MB	3MB
Network Protocol	TCP/IP	TCP/IP

1. If you plan to run UNIX-SPIRS and ERL Solaris server on the same machine, the following minimum requirments supersede those listed above: Computer-Sun SPARC station 20; Memory-ERL Solaris Server minimum plus 2MB per simultaneous UNIX-SPIRS user.

Getting the Software

The UNIX-SPIRS software is distributed separately from the ERL software. You can download the UNIX-SPIRS software from a SilverPlatter ftp site. UNIX-SPIRS is also available on the SilverPlatter Software Resource CD-ROM.

Installing UNIX-SPIRS

The UNIX-SPIRS installation uses the **pkgadd** utility. You must be logged in as *root* to use the **pkgadd** utility.

Installation Steps

1. Make sure the file **UNIXSPIRS.pkg** is in the current directory.
2. Type the following:

   ```
   pkgadd -d /pathname/UNIXSPIRS.pkg
   ```

   where *pathname* is the full pathname to your current directory. The installation process begins.

3. At the prompt to select the package you wish to process, enter the number that is next to the UNIX-SPIRS package. The **pkgadd** script begins to install the UNIX-SPIRS package.

4. At the base directory prompt, type in the complete path of the directory (beginning with a "/") where UNIX-SPIRS should reside.

5. The script lists several files and asks if you want to install them.

   Enter y at the prompt.

6. Enter the User ID for UNIX-SPIRS.

7. Enter the Group ID for UNIX-SPIRS.

At this point, UNIX-SPIRS is installed in your directory. For a text-based UNIX-SPIRS manual, refer to the file **unixspirs.txt**. For the latest enhancements and known problems with UNIX-SPIRS see **readme.txt**.

Editing the erlclnt.cfg File

Edit the **erlclnt.cfg** file as described in "Editing the ERL Client Configuration File" on page 8–16, to configure UNIX-SPIRS to find your ERL server.

PC-SPIRS

The PC-SPIRS ERL clients are distributed in a package with the ERL software. You cannot use the stand-alone version of PC-SPIRS to access an ERL system.

You can install the PC-SPIRS ERL client on a networked file server or on individual workstations. If you install PC-SPIRS on a file server, all users on individual workstations share the same copy of the client software. If you install PC-SPIRS on individual workstations, each workstation runs its own copy of PC-SPIRS.

Hardware and Software Requirements

The PC-SPIRS ERL client requires a computer that meets the following criteria:

Component	Minimum Requirements
Computer	80386IBM-compatible PC
Memory	1 MB
Video	monochrome
Operating System	MS-DOS or PC-DOS 3.1 or higher
Hard Disk	4 MB
Floppy Drive	One low density
Other	Parallel Port for printer EMS memory manager

Getting the Software

The PC-SPIRS client software is distributed with the ERL server software. Making the PC-SPIRS clients available to end users involves three steps:

- Add the **erlclnt.pkg** file to the ERL server.
- Transfer the client software to an end user's machine. See "Transferring the PC-SPIRS Client Software to a PC" on page 8–15.
- Run the PC-SPIRS client install program on the end user's machine. See "Installing and Running on a PC" on page 8–16.

Transferring the PC-SPIRS Client Software to a PC

You transfer the PC-SPIRS client software to local workstations or file server using ftp. In addition, if you are using the SCO version of ERL you can transfer the software using floppy disks.

Via Floppy

You can copy PC-SPIRS clients to a PC via floppy disk. Prepare the software for distribution as described in step 1.

1. Use **mkflop** to copy files from the server to the floppy.
   - Login as user *erl*.
   - Change to the directory **/sproot/scripts**.
   - Start the **mkflop** script.

     ```
     mkflop client [Enter]
     ```
   - Follow the on-screen instructions for selecting a client and making a floppy copy.
2. Take the floppy to the client DOS machine and copy all the files to one directory on the hard disk.

Via File Transfer Protocol

You can copy PC-SPIRS clients to a PC via file transfer protocol.

1. Make a temporary directory on the DOS machine (or file server) for storing the compressed files and change to that directory (for example, **\TEMP**). After you install PC-SPIRS, you can delete this directory and the files in it.

   ```
   md \TEMP [Enter]
   cd \TEMP [Enter]
   ```
2. From the DOS machine, ftp to the UNIX server and log in.
3. At the ftp prompt, change directories to **/sproot/client/bin/***tcpip*, where *tcpip* is the type of DOS TCP/IP environment that you have installed on your machine.

   ```
   cd /sproot/client/bin/tcpip [Enter]
   ```
4. Set the file transfer type to binary

```
binary [Enter]
```

5. Get all the files in **/sproot/client/bin/***tcpip*

```
mget *.* [Enter]
```

6. Exit ftp.

Installing and Running on a PC

The PC-SPIRS Install program will un-compress PC-SPIRS and create a permanent directory for storing SPIRS on your PC. **C:\SPIRS** is the default directory.

Install is fully documented in the *SPIRS Users Manual* for both network and desktop installation.

1. From the DOS prompt of the drive where the PC-SPIRS files are located, run the Install program.

```
c:install [Enter]
```

2. To start the client, type the following:

```
cd \spirs [Enter]
spirs [Enter]
```

The ASCII file called **SPIRS.TXT** included in your SPIRS directory is a brief guide to the client software. You can print this file on any printer and use it as a reference for searching the databases found on ERL.

Editing the ERL Client Configuration File

The ERL client configuration file (**erlclnt.cfg**) is a text file that contains information necessary for locating the ERL servers. If you have more than one server, or if your server address has changed, you will need to modify your **erlclnt.cfg** file.

When you are using ERL for UNIX machines, this file appears in each client directory under **\sproot\client\bin** after you have unpackaged the PC-SPIRS files on your server. WinSPIRS, MacSPIRS, and UNIX-SPIRS clients are shipped with the **erlclnt.cfg** file.

To edit the configuration file:

1. Open the file **erlclnt.cfg** with a word processor or text editor.

2. Modify the TCP/IP address listed in the following line to match the address of your ERL server.

   ```
   server_addr1 = /2/server_name_or_address/416
   ```

   If you have more than one ERL server, create the following lines for each additional server, where *n* increments with each server.

   ```
   server_addrn = /2/server_name_or_address/416
   server_typen = 3
   ```

3. Save **erlclnt.cfg** in text-only format.

If the client reports that it cannot find the server, you should use the IP address for the server instead of the host name.

Example erlclnt.cfg using host name

The host name must appear between the second and third forward slashes. Do not change any other entries in the **erlclnt.cfg** file.

```
server_addr1 = /2/erl.server/416
server_type1 = 3
```

Example erlclnt.cfg using TCP/IP address

If your clients do not have host name resolution capabilities, you can replace the host name with the TCP/IP address of the server. The IP address must appear after the second forward slash and before the third forward slash. Do not change any other entries in the **erlclnt.cfg** file.

```
server_addr1 = /2/123.45.67.89/416
server_type1 = 3
```

Chapter 9

About SilverLinker

Introduction

This chapter explains SilverLinker, the SilverPlatter product that allows you to navigate seamlessly from bibliographic references in SilverPlatter databases to full content. By clicking on a link in your search results you can navigate directly to the full text of an article.

SilverLinker works with the SilverPlatter databases that you already use. Links are supplied in a separate and regularly updated SilverLinker database. When the SilverLinker database is mounted on your ERL server, ERL automatically adds links to full content to any record which refers to an article whose Web address (URL) is stored in the SilverLinker database.

Electronic Journals

The SilverLinker database includes links to the electronic form of an ever-expanding list of scholarly journals. Check the SilverLinker web site (**http://www.silverplatter.com/silverlinker/**) for the latest lists of journals.

To access the full text of an article, you or your institution may need a subscription to the electronic form of the journal in which it is published, or to the publisher's Web site. Contact your librarian or systems administrator for more information.

Many full text articles are published online in Adobe Acrobat (PDF) format. To read Acrobat documents you will need the Adobe Acrobat Reader software. This can be downloaded, free of charge, from the Adobe Web site (**http://www.adobe.com**).

The SilverLinker Database

The SilverLinker database is licensed, installed, and mounted in the same way as any other SilverPlatter database, and is administered using the same tools (WebAdmin or ERLAdmin). However, SilverLinker differs from other databases in the following ways:

- It is automatically opened when a user opens a SilverLinker-enabled database. It is never shown in the lists of available databases seen by users of WebSPIRS, WinSPIRS or MacSPIRS.
- It can only be used when mounted on an ERL server: it cannot be installed locally.
- There is no limit on the number of users who can access it: all licenses are site licenses.

SilverLinker-Enabled Databases

SilverLinker links are available in many, but not all, SilverPlatter databases. Check the SilverLinker Web site for the latest list. If a database is not supported, no links will be shown in records from that database.

Supported Clients

WebSPIRS, WinSPIRS and MacSPIRS, version 4.0 or later support SilverLinker.

To help users to determine easily if a particular ERL server has support for SilverLinker, WebSPIRS shows a SilverLinker logo next to the name of each ERL server that mounts a SilverLinker database. If this logo appears, the user currently logged on is authorized for the SilverLinker database.

How Links are Displayed

In WinSPIRS and MacSPIRS, SilverLinker links are shown as hotlinks whose prompt text is of the form “Full text from XZY Publishers”. You can configure the prompt text for each publisher web site (see “Configuring Prompts and Images” on page 9–4 for details). Clicking on a hotlink will start the default web browser on the user’s machine, which will download and display the requested document.

In WebSPIRS, SilverLinker links are shown as graphic buttons. In WebSPIRS 4.0 the button text is of the form “Full text from XZY Publishers”. You can configure the button image for each publisher web

site (see “Configuring Prompts and Images” on page 9–4 for details). For WebSPIRS 4.1 and later the button is of the form “Link to” followed by links to the publishers’ sites.

Managing SilverLinker Databases

SilverLinker is licensed, installed, and mounted like any other SilverPlatter database. For complete information, refer to Chapter 4, “Managing Databases”.

Configuring SilverLinker

You can configure SilverLinker to match your users’ requirements in several ways. To configure SilverLinker, edit the ERL server configuration file, **/sproot/bin/erlsrvr.cfg**, using a text editor.

Disabling and Enabling SilverLinker

To disable SilverLinker for all databases, remove the following configuration statement from **erlsrvr.cfg**:

```
provider.SLINK=perlprov
```

You can delete the line or comment it out by preceding it with “/*”.

To re-enable SilverLinker, add or uncomment the configuration statement. Make sure the statement appears in the file before any section headers. (Section headers are items in square braces [like this].)

We recommend you restart the ERL server after enabling or disabling SilverLinker.

Excluding Sites

The SilverLinker database may contain links to sites to which your organization does not have access, or to sites which do not contain information relevant to your organizational goals. You can ensure that SilverLinker never displays links to such sites by adding them to the exclude tag in the [silverlinker] section of **erlsrvr.cfg**.

To exclude a site, add the full hostname part of its URL to the exclude tag in the [silverlinker] section of **erlsrvr.cfg**.

Note:

- The hostname must include the protocol prefix (**http://**) and the trailing slash character (/).
- Separate multiple hostnames with a space character.
- Enter the `exclude=` line as a single line of text. In the following example, the line is shown on two lines to fit on the page.

For example:

```
[silverlinker]
exclude = http://www.journalpub.com/
http://www.europe.anypub.com/
```

This example excludes links from two hypothetical sites, the European mirror site of “anypub.com” and from the main “journalpub.com” site.

Many publishers provide so-called “mirror sites”, which duplicate their online content at a location physically close to some group of their customers. You can use the exclude facility to ignore geographic mirror sites that are not appropriate for your location. For example, if you are in North America, you could choose to exclude European mirror sites.

Configuring Prompts and Images

When users search a SilverLinker-enabled database with WebSPIRS 4.0, links to full text are displayed as button images. These images have prompt text that some browsers also display, typically when the user holds the mouse cursor over the link for a second or two. In WinSPIRS and MacSPIRS, only the prompt text is displayed.

You can configure both the images and prompt text by editing **erlsrvr.cfg**.

Prompts

To configure the prompt text, edit the entries in the [pmt] section of **erlsrvr.cfg**.

A prompt entry has the form:

```
URL_hostname = prompt_string
```

URL_hostname is the base address of the Web site, including the protocol prefix and trailing slash. *prompt_string* is any single line of text: this is the text displayed on the screen.

Note:

- Enter each line as a single line of text. In the following example, each line is shown on multiple lines to fit on the page.

For example:

```
[pmt]
http://www.journalpub.com/ = Full Text from
Journal Publishers
http://www.europe.journalpub.com/ = Full Text
from Journal Publishers (European Mirror)
```

This example displays "Full Text from Journal Publishers" or "Full Text from Journal Publishers (European Mirror)" when a user holds their mouse cursor over these particular SilverLinker links.

Images

To configure the button images used in WebSPIRS 4.0, edit the entries in the [img] section of **erlsrvr.cfg**.

An image entry has the form:

```
URL_hostname = image_filename
```

URL_hostname is the base address of the Web site, including the protocol prefix and trailing slash. *image_filename* is the name of an image file which WebSPIRS will display each time it displays links from that site. You can use images in any format supported by your users' browsers, which normally include GIF and JPEG. Put the image file in the standard WebSPIRS image directory.

See the *WebSPIRS Implementor's Guide* for more information, including how to set up a dropdown list of publisher sites in WebSPIRS 4.1.

Note:

- Enter each entry as a single line of text.

For example:

```
[img]
```

```
www.journalpub.com/ = jrnalpub.gif
www.europe.journalpub.com/ = ejrnalpub.gif
```

This example specifies the two graphics files to display as SilverLinker links to these particular sites.

Troubleshooting SilverLinker

See "Troubleshooting SilverLinker" on page 12–4 for advice on some of the problems you might experience with SilverLinker.

Chapter 10

The Z39.50 Option

Introduction

This chapter introduces SilverPlatter's implementation of Z39.50, the ANSI/NISO network protocol for database searching and information retrieval.

For more information about SilverPlatter's Z39.50 Option, refer to the *Z39.50 Administrator's Guide*. See "Getting the Software" on page 10–3 for details about getting the software and documentation.

SilverPlatter's Z39.50 Option provides a transparent link between Version 2 or Version 3 Z39.50 clients and an ERL Server, regardless of hardware or software differences. As a result, users at client sites can search SilverPlatter databases while using the familiar interface, commands, and search methods of their local systems.

Supported Z39.50 Features

SilverPlatter's Z39.50 Gateway is compliant with Version 2 and Version 3 (the most current edition) of the Z39.50 specification. It supports the following features:

Note: Your Z39.50 client must also support these features.

- Searching Universal Fields

  Allows users to narrow searches to specific fields rather than general keyword searches.

- Support for MARC-Mapped and Non-MARC Databases

  The Z39.50 gateway supports MARC, SUTRS (Simple Un-

structured Text Record Syntax) and GRS.1 (Generic Record Syntax)

- Browse

  Allows users to view and select terms from database indexes.

- Enhanced Explain Database Features

  The Explain database provides additional information about searchable fields, including searchable attributes, returned fields, and term limits.

- IP Address Checking

  Multiple IP addresses can now be forwarded to the ERL server, eliminating the need for each user to enter a username and password.

- Named Result Sets

  Allows searches to be retained on the Gateway server, enabling users to rerun and edit searches from their search history.

- Record Sorting

  Allows users to sort search results according to a particular field (such as Author, Title, or Publication Year, for example.)

System and Client Requirements

System Requirements

- ERL 2.09.5 or higher
- In addition to the basic ERL hardware requirements, you need:
  - 5 MB hard disk space for Gateway installation
  - 4 MB RAM for the first four simultaneous users plus 1 MB RAM for each additional user

Client Requirements

- User Authentication

  If the ERL server requires a username and password, clients must support User Authentication and send either the open "user/password" or idPassIdAuthentication in the initialization request.

If the ERL server uses IP Address checking, you can specify a username and password in the **erlsrvr.cfg** file. See "Configuring the Z39.50 Gateway" in the *Z39.50 Administrator's Guide* for more information.

- Attribute Sets

  Client must support Bib-1 Attributes or they must be dynamically configured through the Version 3 Explain Database.

- Record Syntaxes

  Clients must support MARC, SUTRS or GRS.1.

Getting the Software

The Z39.50 software and full documentation set is available on SilverPlatter's ftp site.

To download Z39.50:

1. Use anonymous ftp to connect to SilverPlatter's site:
   - United States: **ftp.silverplatter.com**
   - United Kingdom: **ftp.london.silverplatter.com**
2. Change to the **/software/z3950 directory**.
3. Change to the **aix**, **nt**, **sco**, or **solaris** directory.
4. Download all files from the directory. They are the compressed software, release notes, and the *Administrator's Guide*, in HTML and text.

Refer to the *Administrator's Guide* for complete installation instructions.

Chapter 11

Library Holdings

Introduction

This chapter describes how to use the Holdings Conversion Utility (HCU) in an ERL environment. You can use HCU to convert your serials holdings files into SilverPlatter-compatible holdings files, in order to display journal-specific local holdings information along with SilverPlatter bibliographic records. See the *SilverPlatter Local Holdings User Documentation* for full details of how to create the files.

This chapter explains the following:

- Making the messages available from your ERL server
- Enabling messages for specific databases
- Configuring the default messages that appear when there is no journal-specific information to display
- Using holdings files created in SilverPlatter's Library Holdings Administration Program (SPLHA)

Making the Holdings Messages Available

Once you have created the HCU-generated holdings files, **.lhm**, **.lhd**, and **.lhi**, copy them to the **/sproot/cfiles** directory of your ERL server so that messages will be displayed by SPIRS clients.

Use the **/sproot/dbase/coretags.cfg** file to record information which affects the display of holdings information within your SilverPlatter databases. You can control the database families for which holdings

messages are displayed; and you can choose to activate default messages to display under certain specified conditions.

Enabling Holdings Messages for Specific Databases

You can enable the display of HCU-generated holdings messages for only specific database families by creating a list of those database families which you wish to **exclude** from displaying holdings messages, within **/sproot/dbase/coretags.cfg**.

Editing coretags.cfg

1. Open **coretags.cfg** in your text editor.

2. Find tag `!42`. Delete the semi-colon (;) at the beginning of the tag, and enter a comma-delimited list of the database families for which you **do not** want holdings messages to display.

   The default is for holdings messages to display for all SilverPlatter databases. If you explicitly list in this file some subset of your databases for which holdings message display is disabled, holdings messages will display only for those database families you have **not** included in the list.

For example:

If your library subscribes to the following databases:

- Medline Advanced (MEDS)
- PsycInfo (PY)
- Sociofile (SO)
- Cinahl (NU)

you might want holdings messages to display **only** for Medline Advanced and PsycInfo. So you add the following to **coretags.cfg**:

```
!42=SO,NU
```

Note: You must enter the database family names, and you must separate each with a comma.

Configuring Default Messages

You can configure the display of default messages for cases when there is no journal-specific holdings message to display for a particular SilverPlatter bibliographic record.

The **/sproot/dbase/coretags.cfg** file contains the following list of numeric tags and textual messages associated with various conditions that result in no message being available for display:

```
;!50 Holdings files missing or incomplete
;!51 This database contains no valid holdings keys
;!52 Holdings for this database family disabled
;!53 No holdings key field in record
;!54 No holdings key found in fields
;!55 The holdings key in this record is invalid
;!56 Holdings index file corrupt - rebuild
;!57 No holdings information for this record
```

Editing coretags.cfg

1. For any condition for which you would like a default message to display, open the **coretags.cfg** file in your text editor.

2. Delete the semi-colon (;) at the beginning of the tag which corresponds to the condition for which you would like a default message to display.

   You can leave the text as it is, or edit the text to display any wording you wish. If messages span multiple lines, you **must** type `\n` at the end of each separate line of text at the point where you wish the line-break. If you press **[Enter]** at the end of a line, the message will be truncated at that point.

For example:

If your library does not subscribe to the journal that is cited in the SilverPlatter record being displayed, there would be no journal-specific message to display.

To activate a message to display for this condition, use message !57.

Refer to the *SilverPlatter Local Holdings User Documentation* for more details.

Using SPLHA Files

SilverPlatter's Library Holdings Administration Program lets you attach messages and call numbers to the titles indexed in SilverPlatter databases. You can use this program in ERL. Simply copy the library holdings files **splha.lhd** and **splha.lhm** to the **/sproot/cfiles** directory on the server. This can be done using ftp. Be sure to use binary mode when using ftp.

If you have used the SilverPlatter Library Holdings Administrator (SPLHA) in the past and have **.lhm** and **.lhd** files, you can continue to use those files with ERL Release 4 clients and servers to display holdings for the limited set of SPLHA-supported databases (Medline Advanced; Medline Express; Medline Professional; CINAHL; HealthStar; PsycLit; ClinPsyc; Wilson Readers' Guide; RNDEX.) for the time being.

However, you cannot use both HCU- and SPLHA-generated holdings files together: you must use one or the other. If you subscribe to SilverPlatter databases in addition to the SPLHA-supported ones, and you now wish to display holdings for these additional databases, you must use HCU-generated files for all of your holdings information.

To do this, you must do **one** of the following:

- Create a single input file that includes all of your serials holdings, including the ones represented in the SPLHA-supported databases, and convert this file using HCU.
- Use the SPLHA/ASCII Conversion Utility to convert your existing SPLHA file to the ASCII format required as input to HCU, import that into a word-processing or spreadsheet program, and then add to it any additional serials holdings which are not included.

SilverPlatter recommends that you begin using the HCU facility as soon as possible.

Chapter 12

Troubleshooting Guide

Introduction

This chapter lists some problems you might come across when you install the ERL Server software, and the solutions to those problems.

It does not cover all the possible problems: you should also check out the Knowledge Base on the SilverPlatter Software Resource CD-ROM. This is a extremely valuable source of technical and product support information for all SilverPlatter products. It comes on the CD-ROM as a database that you can access and search from within a SPIRS client.

If you cannot find the answer here or in Knowledge Base, please contact your distributor, or our technical support staff at SilverPlatter. See “Contacting SilverPlatter” on page 1–4 for details. In some circumstances our support staff may ask you to run a diagnostics program and send the resulting log file to SilverPlatter for analysis.

This chapter also contains a check list of the files that you edit, either while you are installing and configuring the ERL server for the first time, or to make changes later. Here you can look up an activity, check which file it is you use, and then turn to the relevant part of the manual to see how to make the changes.

General Items to Check

If you have problems when you are installing or configuring ERL, it is a good idea to check the following items: any one of them might cause the server not to run.

- Are your system requirements correct, as set out at “Checking Your System Requirements” on page 2–2?

- Have you downloaded and installed the correct version of the software?
- Are all the default directory and filenames exactly as they appear in this manual?
- Are items such as 0 (zero), O (uppercase o), 1 (one), l (lowercase l) and L (uppercase l) all entered correctly?
- Are there any incorrect spaces in any filenames or accounts?
- Are IP addresses entered correctly?
- Do the **ipincl** and **ipexcl** files have the correct numbers entered?
- Is the server ID exactly as it appears on your license, but without the SP$ at the beginning?

Problems with databases

If you have licensed, installed, mounted, and enabled a database, and authorised users to use it, but a user *somename* is unable to access it, try going through the following steps:

1. Check that you have set the authorizations correctly. See "Requiring Authorizations for a Database" on page 5–13.
2. If you made access to this database limited to portfolio members, check that user *somename* is a member of the portfolio. See "Authorizing Accounts to Portfolios" on page 5–14.
3. Open a SPIRS client as user *admin*, and see if you are able to access the database.
   - If user *admin* can access the database, then there is a portfolio problem for user *somename*.
   - If user *admin* cannot access the database, look in **/sproot/files/dbl.txt**. If the database is **not** listed there, the ERL does not recognize the database, and you probably have a license problem. Check that all your license information is entered correctly. If there is still a problem, contact technical support.

4. Use WebAdmin or the ERL Server menu to check that the database is enabled. (See “Enabling and Disabling Databases” on page 4–10.)

5. If the database is not in the list of databases to enable or disable, it is not mounted. Mount the database (see “Mounting and Unmounting Databases” on page 4–9.)

6. Check that the database is installed. Go to the ERL server menu, choose **6. Database Installation** then option **4. Display Installed databases**. If the database is not listed, then you may need to install it again; but first check that the license information is correct.

7. Check the license information is correct. Did you enter all the license information **exactly** as it appears on the license?

Troubleshooting SilverLinker

The list below gives general advice on resolving problems with SilverLinker

Problem	Possible Cause	Solution
There are no links in the results display.	SilverLinker is not enabled.	Re-enable SilverLinker. See “Disabling and Enabling SilverLinker” on page 9–3.
	The database searched is not SilverLinker-enabled.	Check the SilverLinker Web site for a current list of databases covered.
	The user has not included the SilverLinker FTXT field in the list of fields to display in WebSPIRS, WinSPIRS or MacSPIRS.	Add the FTXT field to the list of fields that are included in the results display.
	The SilverLinker database is not licensed for the current user.	Install the license for the SilverLinker database.
	The SilverLinker database is not mounted.	Mount the SilverLinker database.
	The SilverLinker database is not enabled.	Enable the SilverLinker database. See “Enabling and Disabling Databases” on page 4–10.
	There is no link available for those articles.	Check the SilverLinker Web site for a current list of Journals covered.
Clicking a link displays a “Document not Found” message.	The document has moved on the publisher’s site.	Try again later, with an updated SilverLinker database.
Users cannot log on to publisher’s Web site.	Your organization is not registered with the publisher.	Contact the publisher.

Checklist of Main Files you can Edit

Activity	Action to Take	File/Directory to edit	Explained in detail at
When you install the ERL Server software			
Windows NT Server (When you install the software, you edit these files from within the installation program, not the individual files)	Enter drive letters for CD-ROM drives you want to make available to the ERL Server	**\sproot\files\devices**	"Installing ERL on NT" on page 2–11
	Add any drives or directories where you want to copy database files when you install them.	**\sproot\files\nodes**	"Installing ERL on NT" on page 2–11
	Add the IP addresses for machines you want to access the ERL server.	**\sproot\cfiles\ipincl**	"Installing ERL on NT" on page 2–11
UNIX Server	Enter drive letters for CD-ROM drives you want to make available to the ERL Server	**/sproot/files/devices**	"Preparing Filesystems" on page 2–16
	Add any drives or directories where you want to copy database files when you install them.	**/sproot/nodes**	"Preparing Filesystems" on page 2–16
	Add the IP addresses for machines you want to access the ERL server.	**/sproot/cfiles/ipincl**	"Entering IP Addresses" on page 2–18

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Activity	Action to Take	File/Directory to edit	Explained in detail at
Solaris only	Prevent contention between Solaris CD manager program and ERL.	**/etc/vold.conf**	"Preparing Filesystems" on page 2–16
	Ensure filesystems mount automatically when you boot the system.	**/etc/vfstab**	"Preparing Filesystems" on page 2–16
SCO only	Ensure filesystems mount automatically when you boot the system.	**/etc/default/filesys**	"Preparing Filesystems" on page 2–16
Installing WebAdmin on UNIX			
	Configure an Apache webserver to find WebAdmin. (These files are part of the Apache software.)	**httpd.conf**	"Installing WebAdmin on AIX, SCO, or Solaris" on page 3–4
		access.conf	"Installing WebAdmin on AIX, SCO, or Solaris" on page 3–4
Managing databases			
	Create or edit a menu of available databases.	**/sproot/cfiles/ dbmenu.cfg**	"Creating a Menu of Database Titles" on page 4–14
Setting IP address checking			
	Add the IP addresses for machines you want to access the ERL server.	**/sproot/cfiles/ipincl**	"Setting IP Address Checking" on page 5–1
	Exclude specific IP addresses for machines you do not want to access the ERL server.	**/sproot/cfiles/ipexcl**	"Setting IP Address Checking" on page 5–1
Logging IP addresses	Specify which type of IP addresses you want to see in the log file.	**/sproot/bin/erlsrvr.cfg**	"IP Address Logging" on page 5–3

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Activity	Action to Take	File/Directory to edit	Explained in detail at
Running statistics			
	Change the way the statistics logging works.	**/sproot/bin/erlsrvr.cfg**	"Setting Statistics Configuration Settings" on page 7–2
Configuring SilverLinker			
	Change the way SilverLinker works.	**/sproot/bin/erlsrvr.cfg**	"Configuring SilverLinker" on page 9–3
Setting up library holdings messages			
	Enable messages for specific databases.	**/sproot/dbase/coretags.cfg**	"Enabling Holdings Messages for Specific Databases" on page 11–2
	Change the type and text of default messages.	**/sproot/dbase/coretags.cfg**	"Configuring Default Messages" on page 11–3

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Chapter 13

Other Scripts & Functions

Note: This chapter applies only to ERL on UNIX platforms.

Use these scripts only when logged in as user *erl*.

CHANGESERVINFO

/sproot/scripts/changeservinfo is a script that allows you to change server information after installation. After the option to change swap space appears, the current server information displays. Then you can enter new values for the Server ID, Server name, Organisation ID, Organisation name, Site ID, Site name, and Max logins.

MKFLOP

/sproot/scripts/mkflop is a single script to create both PC-SPIRS client and ERL Administrator client floppies on SCO machines only. To use it, run `mkflop client` or `mkflop admin` as desired.

MKCLIADDR

/sproot/scripts/mkcliaddr is a program for creating the configuration file **erlclnt.cfg**. The script takes a single parameter (lwp, ftp, nw, pcnfs or wattcp) that indicates the kind of client to be configured. It creates an **erlclnt.cfg** file for that type of client in the current working directory.

SETPERMS

/sproot/scripts/setperms is a script run during installation. It changes the ownership of **/sproot** files so they are owned by the user *erl*. You can run this script at any time by running the following command:

```
setperms /sproot
```

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